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**SENSE OF PLACE AMONG NEW ENGLAND  
ORGANIC FARMERS AND COMMERCIAL FISHERMEN:  
HOW SOCIAL CONTEXT SHAPES  
IDENTITY AND ENVIRONMENTALLY RESPONSIBLE BEHAVIOR**

**BY**

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**BS, University of New Hampshire, 1990**

**M.Ed., University of Colorado, 1995**

**DISSERTATION**

**Submitted to the University of New Hampshire  
In Partial Fulfillment of  
The Requirements for the Degree of**

**Doctor of Philosophy**

**In**

**Education**

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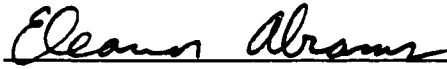
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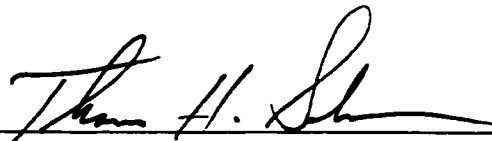
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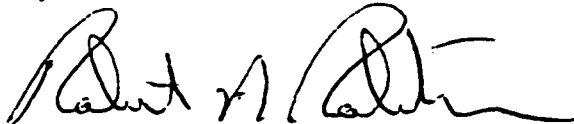
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## **ABSTRACT**

### **SENSE OF PLACE AMONG NEW ENGLAND ORGANIC FARMERS AND COMMERCIAL FISHERMEN: HOW SOCIAL CONTEXT SHAPES IDENTITY AND ENVIRONMENTALLY RESPONSIBLE BEHAVIOR**

By

Anneliese Marie Mueller

University of New Hampshire, September 2002

Given the prominence of sense of place in new environmental education curricula, this study aims to strengthen the conceptual and empirical foundations of sense of place, and to determine how sense of place may be linked to environmentally responsible behavior. For this study, five commercial fishermen and five organic farmers from the New England Seacoast region participated in a series of in-depth phenomenological interviews and observations. The data was systematically coded in order to allow themes and categories to emerge. The results indicate that aspects of the existing conceptual framework of sense of place, such as place attachment, ecological knowledge, and public involvement, do in fact describe the relationship between people and place. However, the results also indicate that two conceptual elements--attention to social context and awareness of moral theory--are missing from the current conceptual framework in EE theory. These results suggest that the current framework should be expanded

to emphasize the role of human and non-human communities: the development of a sense of place and the learning of environmentally responsible behavior must be situated within a social context. This study lends support to the view that for sense of place to move people to ethical action, it is crucial for them to recognize, and to participate in, a community of support and care.

## INTRODUCTION

Given the prominence of sense of place in new environmental education curricula, this study aims to strengthen the conceptual and empirical foundations of sense of place, and to determine how sense of place may be linked to environmentally responsible behavior. To strengthen the theoretical foundations of environmental education (EE), I examine how sense of place is developed and sustained over time. This research was conducted in an effort to help environmental educators better integrate sense of place into their curricula as they strive to facilitate environmentally responsible behavior. In this chapter, I present an overview of the central themes of the argument for this research. First I briefly present the received framework and how it inspired this study, and then I use the remaining part of the chapter to present the purpose of this study in further detail.

The received framework of sense of place states that when one has a developed sense of place, one has several things: place attachment to the human constructs in the place; ecological knowledge which leads to ecological identity, and therefore, environmentally responsible behavior; and a sense of community, which facilitates the development of a social identity which leads to environmentally responsible behavior (I review the literature of the received framework in Chapter One).

Recently, sense of place has been integrated into EE because it is assumed that a person with a well-developed sense of place will act responsibly to protect the environment in that place (Barry 1995; Dodge, 1981; Snyder, 1995; Orr,



1992; Kemmis, 1990; Berry, 1977; McTaggart, 1993; Leopold, 1949). The argument for integrating sense of place into EE is that it supports the overarching educational purpose: to facilitate environmentally responsible behavior (Environmental Protection Agency, [EPA], 1990 in Berger, 1995; Hines, Hungerford, & Tomera, 1987; Hungerford and Volk, 1990; Meadows, 1989; NAAEE, 2000; Orr, 1992; Orr, 1994; Smith, 1992; Tilbury, 1995). The received framework suggests that having a strong sense of place is necessary for environmentally responsible behavior; therefore, EE should incorporate sense of place as a central concept.

The existing conceptual framework of sense of place contributes to our understanding of the complex role of place in our work and in our lives, and to the link between place and environmentally responsible behavior. However, the empirical and conceptual foundations of the received framework of sense of place, and the assumption that sense of place leads to environmentally responsible behavior, have not been sufficiently supported by empirical data. It is this lack of empirical evidence that inspired the present study.

In the remaining part of the chapter, I first define the goals of EE and environmentally responsible behavior from the relevant literature. Next, I describe how and why sense of place is integrated into the EE curricula. Then, I question the conceptual literature that supports the integration of sense of place into EE. Lastly, I introduce my research and the significance of the study for environmental educators.

## **The Goals of Environmental Education**

Environmental Education has evolved over time, but remains rooted in the definitions developed in the UNESCO Belgrade Charter (1975) and the Tblisi Conferences (1977). In this section I establish that the underlying goal of EE is to facilitate environmentally responsible behavior. However, in Chapter Six, which deals with the implications of this study, I review the most recent developments in theorizing what environmental education is and what it is for. The most recent theories build upon the original behaviorist goals that I present here, but expand beyond these goals to place a new emphasis on the process of obtaining these goals.

The Belgrade Charter, an international framework for environmental education, developed at an environmental education workshop in Belgrade, Yugoslavia, hosted by United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 1975.

The Belgrade Charter states that:

The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones. (NAAEE, 1999)

In 1977, the principles outlined in the Belgrade Charter were further elaborated upon at another environmental education workshop held by UNESCO in Tblisi, Georgia, USSR, in which participants articulated the goals of environmental education more clearly. This document, named the Tblisi Declaration, specified these three aims for EE:

- To foster clear awareness of, and concern about economic, social, political and ecological interdependence in urban and rural areas;
- To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment; and
- To create new patterns of behavior of individuals, groups and society as a whole towards the environment. (NAAEE, 1999)

The Tblisi Declaration also identifies five categories of objectives for individuals and groups that should be acquired through environmental education:

- Awareness and sensitivity to the environment and environmental problems;
- Knowledge and understanding of the environment and environmental problems;
- Attitudes of concern for the environment;
- Skills to identify and solve environmental problems; and
- Participation for active involvement in solving environmental problems. (NAAEE, 2002)

These goals and objectives establish the roots from which many EE agencies have developed. Environmental education, as defined by these declarations and definitions, still maintains the goal of facilitating environmentally responsible behavior. The North American Association for Environmental Education (NAAEE)(2000) states:

Environmental education is rooted in the belief that humans can live compatibly with nature and act equitably toward each other. Another fundamental belief is that people can make informed decisions that consider the future generations. EE aims for a democratic society in which effective, environmentally literate citizens participate with creativity and responsibility. (p.1)

Beyond these fundamental objectives, shared by all environmental educators, however, the nature of environmentally responsible behavior is defined differently by different educators who thus reinterpret the goals of EE. Some

define environmentally responsible behavior in terms of sustainability (Tilbury, 1995; Disinger, 1999; Haury, 1998). Others define it in terms of civic virtue, when a person works individually or collectively to better the ecological and social integrity of the place (Kemmis, 1990; Leopold, 1949; NAAEE, 2000). Next I define environmentally responsible behavior for the purposes of this study.

### **Defining Environmentally Responsible Behavior**

The definition of environmentally responsible behavior differs among researchers. I review three distinct categories of environmentally responsible behavior: a “shallow” interpretation that involves things like recycling and giving money to environmental groups, sustainable development from a resource-use perspective, and sustainability based upon a more civic participation view. In this study, I define environmentally responsible behavior as one’s sustainable actions and civic participation, which includes attention to resource-use and shallow solutions such as recycling, but also extends to include such actions as active public involvement and critical thinking.

Environmentally responsible behavior often is defined in terms of the shallow ecology movement, which advocates “Band-Aid” or “fix-it-quick” solutions, such as recycling or joining environmental groups by donating money (Seguin, Pelletier, & Hunsley, 1998; Steele, 1996; The National Environmental Education and Training Program used a survey developed by Roper Starch Worldwide, 1998). Although this ecology movement may help the environment, they not contend with fundamental, destructive behaviors that lead to ecologically

and socially unsustainable development, however, such as rampant consumption of natural resources, unreasonable waste of these resources, and overpopulation.

In the previous paragraph the term "unsustainable development" was used; sustainability is difficult to define and can be misinterpreted as either ecologically friendly or destructive (Jickling, 2001). For the purposes of this study, though, I use an ecologically positive definition and condition. In simplest terms, The United Nations defines sustainable development as meeting the needs of the world's current population without making it impossible for the world's future citizens to meet their needs (B. Eckert, personal communication, September 14, 1998).

Sustainability goes beyond shallow ecology's quick fix solution and promotes long term solutions. Orr (1992) refers to sustainability as "the fit between humanity and its habitat." (p. 83). The purpose of using the term sustainability is to acknowledge that human technological and economic development will occur, but to assert at the same time that development can be done in a way that maintains the integrity of the social and ecological processes. Tilbury (1995), using the World Commission on Environment and Development's definition (1987), defines sustainability as "The need for reconciliation between economic development and environmental conservation; the need to place any understanding of environmental concerns within a socio-economic and political context; and the need to combine environment and development concerns" (p.3). Tilbury defines environmentally responsible behavior as entailing ecological knowledge, awareness of issues and one's part in the issues, critical thinking

skills, and action strategies taken to live more sustainable lifestyles. According to this definition, environmentally responsible behavior includes public, social, and political participation, informed citizenry, and community mindedness.

There are many advocates of civic virtue who support this definition of environmentally responsible behavior, and who embrace responsible citizenship as a goal of EE (Orr, 1992; Kemmis, 1990; Smith, 1992; Tilbury, 1995; Tomashow, 1995). "How we think of the meaning of citizenship, its bounds, its practices, its purposes, has everything to do with the ecological crisis," writes Engel (1992, p.65).

For the purposes of this study, I define environmentally responsible behavior as ecologically sustainable behavior that encompasses active citizenship. Ecologically sustainable behavior requires a person to consider resource-use and sustainable development. Active citizenship includes recycling and membership to environmental groups, but also extends to include critical thinking, active public involvement, and personal behavior changes. Therefore, environmentally responsible behavior subsumes all three perspectives; "shallow" interpretation, sustainable development, and sustainability based on civic participant. In addition, the examples that I use throughout the text help clarify what I mean and how I utilize the concept.

#### **Sense of Place as a Foundation**

#### **For Teaching Environmentally Responsible Behavior**

The argument in environmental education (EE) is that the goal of EE is to encourage environmentally responsible behavior. Environmentally responsible behavior requires knowledge of sustainable resource-use and civic participation.

Sense of place is the best way to promote knowledge of resource-use and civic participation (Dodge, 1981; Snyder, 1995; Orr, 1992; Kemmis, 1990; Berry, 1977; McTaggart, 1993; Leopold, 1949, Barry 1995). Therefore, EE organizations have taken up sense of place.

In 1997, when I started my doctoral program, there had been a recent surge of efforts to integrate sense of place into EE curricula, based upon this argument. Examples EE programs which integrated sense of place include the Steamship William G. Mather Museum in Cleveland, Ohio, for seventh grade students (Diffenderfer & Earle, 1997); A community mapping project for sense of place (McRae, 1998); Audubon Expedition Institute's (AEI) Masters in Science in Ecological Teaching and Learning; and Roger Tory Peterson Institute's Selbourne Project in New York (Nachtigal & Haas, 1998). In addition to these programs, many articles and books have been written to encourage the integration of sense of place into EE (Barry, 1995; Cajete, 1994; Dodge, 1981; NAAEE, 1995; Trimble & Nabhan, 1994; Orr, 1992; Sanger, 1997; Scott, 1996; Sobel, 1993, Smith, 1992; Weber, 1994).

This strong interest was based upon an assumption that there is a connection between a sense of place and environmentally responsible behavior, though both the assumption and the concept of sense of place lack conceptually and empirically. The foundation of this assumption is demonstrated by environmental education researchers Hungerford and Volk (1990), who believe that knowledge of the environment leads to feeling of concern and caring, and that

these in turn lead to appropriate ecological action. They define an environmentally responsible citizen as possessing:

1. An awareness and sensitivity to the total environment, and its allied problems (and/or issues),
2. A basic understanding of the environment and its allied problems and/or issues,
3. Feeling of concern for the environment and motivation for actively participating in environmental improvement and protection,
4. Skills for identifying and solving environmental problems and/or issues , and
5. Active involvement at all levels in working toward resolution of environmental problems and/or issues. (p.9)

This definition coincides with David Orr's (1992) model: "I know, I care, I'll do something." The concept of sense of place embodies knowing the place, cognitively and affectively (place attachment, ecological and social knowledge, and ecological and social identity). If the assumption is correct that sense of place contributes to environmentally responsible behavior, then sense of place should play an integral role in EE. However, given the prominence of sense of place in EE curricula, both the concept of sense of place and its implications for environmentally responsible behavior need to be conceptually and empirically strengthened.

In the next section, I question the assumptions linking sense of place with environmentally responsible behavior by providing a professional and personal account of the experiences that initiated my inquiry into the concept of sense of place.

### **Questioning the Received Framework for Sense of Place in EE**

My professional and personal experiences led me to begin to question the assumed link between sense of place and environmentally responsible behavior.



Both reviewing the literature and my personal experiences led me to believe that the link between sense of place and environmentally responsible behavior lacked conceptually and empirically. I first review the conceptual inadequacies, then the empirical inadequacies, and lastly, my personal experiences.

Conceptually, environmental education theorists and researchers suggest that when someone has ecological knowledge of a place, then they will act environmentally responsible in the place. However, these theorists do not address a fundamental question: How does someone move from knowing to caring, and ultimately toward environmentally responsible action? This question suggests that environmental ethics need to be addressed more explicitly in the framework.

When I explored the literature, I could not find empirical evidence to support the understanding of how sense of place is developed and sustained, and how it is linked to environmentally responsible behavior. Most of the environmentally based sense of place literature, with the exception of Raffan (1995) and Hays (1998), is conceptually grounded in personal accounts. The conceptual analyses grounded in personal accounts begin to define sense of place and to represent the widely accepted view of what sense of place is and how it relates to environmentally responsible behavior. However, without broader empirical observation that explores both how sense of place is developed and sustained in the Western Culture, and how sense of place may lead to ethical action, the literature remains insufficient for environmental educators to effectively integrate sense of place into their curricula.

Personally, I initially became interested in the concept of sense of place during my travels throughout the Southwestern and Pacific Northwestern regions of the United States, teaching environmental education to graduate students enrolled in a field institute. As a group, we explored environmental issues through the eyes of the various stakeholders. We observed and interacted with people who had a seemingly well-developed sense of place and yet failed to demonstrate caring and protective behavior towards the places with which they were connected.

The people we encountered were intimately tied to the earth, the earth's processes, and to the community in which they lived. Many of them not only resided in the places we visited, they also worked in jobs that were closely embedded in the local community, including the natural world. Their professions ranged from cattle ranching to land conservation, from logging to activism to protect the old growth forests.

Through this examination of people, how they lived in their place, and how they handled disagreements over the use of natural resources, it was apparent to my students and me that these people had a strong sense of place. The shared commonality among all of them was that they lived in a place that they knew both cognitively and affectively. They understood the past and present ecological and social processes of the area. They expressed feelings of belonging and attachment to their place; they felt "at home." But although we believed that the loggers and cattle ranchers appeared to have a deep love and knowledge of the land in which they lived, we could see that they often behaved in ways that were ecologically

destructive. For example, ranching in the southwest causes desertification, thereby destroying the ecological integrity of the system. Similarly, loggers showed that they had a strong knowledge and caring for the places where they worked, but logging the old growth forests in the Pacific Northwest has similar negative ecological implications on the local habitats and ecosystems.

By conducting an extensive literature review on sense of place and by experiencing people who had a sense of place, I was inspired to question how sense of place is developed and sustained, and how it links to environmentally responsible behavior. By examining land practitioner's sense of place, I hoped to provide the empirical evidence needed to strengthen the conceptual and empirical foundations of sense of place. Next I introduce my research project.

### **An Overview of the Project**

To strengthen the conceptual and empirical foundations of sense of place and its relationship with environmentally responsible behavior, I investigate how a deeply felt sense of place is developed and sustained, and how this could lead to ethical consideration and action. I examine two different populations: a local fishing community, the New Hampshire Coastal Fisherman's Cooperatives (NHCFC), and a local farming community, the New Hampshire Organic Farming Organization (NHOFO).<sup>\*</sup> I direct my research with the following questions:

- What is the sense of place held by members of these two communities?
- How were these views formed? How are they sustained?

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<sup>\*</sup> Pseudonyms used

- How do the senses of place held by these communities affect their behaviors and to what extent is their behavior environmentally responsible?
- What motivates people to move from knowing to caring, and then to environmentally responsible behavior?
- What are the implications of these findings for environmental education?

By inquiring into the lives and daily labor of people who have an intimate relationship with the land and sea, I hope to determine the role played by the ecological, biological, social, and economic aspects of place in the decisions people make about their use of natural resources. I chose these two groups for my research because I believed that both fishermen and organic farmers have a strong sense of place, by virtue of the work in which they engage. In addition, I anticipated that each group would have a different sense of place and that this would affect the way they live and work in the environment.

Organic farmers were selected because they adhere to the mission and standards of certified organic farming. The Maine Organic Farmers and Gardeners Association defines organic farming as “The production of safe, high quality food in a manner that does not harm the environment and that preserves or improves soil fertility, soil structure, and farm sustainability” (Maine Organic Farmers and Gardeners Association, n.d., conclusion section, para 7). The farmers who chose to farm organically are specifically committed to this mission, and explicitly intend to act in ways that are environmentally responsible. The mission of organic farming is what motivated me to select this population,

because of the farmers' direct intention and commitment to act environmentally responsible.

Commercial fishermen were selected because they are also land practitioners, though they differed from the farmers because they are extract natural resource from the oceans. There was no stated mission or standard by which commercial fishermen must fish in order to be considered commercial fishermen. However, this industry had recently been subjected to, and continues to coexist with, many federally imposed regulations that are enforced to sustain fish populations. As a result of the imposed regulations, there was a shift in the way commercial fishing was conducted: it had been a "free for all," but had to adopt more restricted practices. Unlike the organic gardeners, commercial fishermen did not choose to enter commercial fishing because of they were committed to these regulations; rather, these regulations were imposed upon them by the government in order to help sustain the fishery.

Prior to the study, these two populations appeared similar to me in their connection to the land, and appeared different in their "missions." As a result of interviewing the participants, my views changed. The actual similarities and differences between the populations are detailed in the data section, providing a more comprehensive understanding of these two populations' sense of place and their ecological behaviors, and narrowing the perceived gap between the populations.

The results of examining these two populations indicate how sense of place is developed and sustained, and offer a stronger conceptual and empirical

foundation upon which environmental educators can build sense of place into EE curricula more effectively. In the next section, I discuss how the other chapters introduce the problem, the methodology, the data analysis, the interpretation, and the implications of this study.

In Chapter One, Review of the Sense of Place Literature, I present the received view of sense of place. Wendell Berry (1977), Gary Snyder (1990), David Orr (1992), and Daniel Kemmis (1990) are among the theorists that I draw upon to conceptualize the accepted view of sense of place. The conceptual framework provides an initial foundation from which this line of inquiry emerges. This discussion of the framework includes three sections: place attachment, ecological knowledge and identity, and public involvement.

In Chapter Two, Methodology, I provide a description of the research methods used to conduct this study. I conducted a grounded theory inquiry focused on the experiences of five commercial fishermen and five organic farmers, utilizing a series of phenomenological interviews with each of the participants.

In Chapter Three, Analysis, I present the data. I begin with a description of the farmers and fishermen, and introduce new concepts and definitions that will be used throughout the data section. To introduce the reader to the types of people I interacted with, I provide two in-depth vignettes, one farmer and one fisherman. I proceed with an in-depth analysis of the participants' data.

In Chapter Four, Implication for Environmental Education, I argue that while the received view of sense of place provides a good beginning to

understand the concept, the data gathered in this study suggests that the concept is far more complex than we have imagined before now. The received conceptual model is only a part of a larger view of sense of place. I illustrate how sense of place is developed and how it is sustained, and then how it is linked to environmentally responsible behavior.

In Chapter Five, I provide implications of the study for environmental education curricula. I suggest primarily that when integrating sense of place throughout the curricula, explicit attention be given to social context and moral theory. In this chapter, further research questions will be introduced.

### Significance of Study

In this study I explore the role of sense of place in people's lives and in their work, strengthening the conceptual and empirical foundations of sense of place. With a better understanding of what sense of place is, how it is developed and sustained, and what constitutes a sense of place, environmental educators will be better able to integrate this concept into their curriculum. In the end, I hope to offer environmental educators a better understanding of how sense of place can be linked to environmentally responsible behavior.

## CHAPTER ONE

### REVIEW OF SENSE OF PLACE LITERATURE

[Sense of place] involves a sense of closeness with the elements, geological structure, animals, plants, all natural beings in a given local, natural place. It is a feeling of community with people in the context of a larger family, which includes all the beings of the region. (Dodge, 1981)

In this chapter, I carefully elaborate upon the way that sense of place is conceptualized in the relevant literature. First I introduce place attachment as it is developed in sociology. Next I review environmental studies and geographical literature for the connection between ecological knowledge and ecological identity. Last I draw upon all three disciplines to present the importance of one's sense of community and the development of one's social identity.

The received framework of sense of place states that when one has a developed sense of place, one has place attachment, ecological knowledge, and a sense of community. My empirical research uses this view of sense of place as a starting point, and my findings call this view into question, considering it inadequate to the task of integrating the concept of place into EE. Besides finding a lack of empirical support for the views of place examined here, I show that these views fail to reflect the complexity of how a sense of place is actually developed and sustained, and how specific components of the model fit together in practice, shortcomings which must be addressed if environmental educators are to



effectively utilize sense of place to achieve their goals of facilitating environmentally responsible behavior.

### **Place Attachment**

Place attachment, also called topophilia, refers to "the affective bond between people and place or setting" (Fuan, 1974 p.4). "Topophilia...presents a general framework for discussing all the different ways that human beings can develop a love of place," Fuan writes (xii). Fuan, a geographer who conducted his professional work on topophilia and sense of place, developed a model that focuses on perception, attitudes and values as they relate to a place and the environment, both natural and man-made. He attributes how people feel about a place to their biological and social make-up, the culture in which they grew up, their preferences, and their perceptions of different types of places. He concludes that a person could develop an affective bond to a place depending on his or her individual make-up.

Place attachment and place identity are sociological concepts, which refer to the emotional bond between people and place. The literature is helpful in beginning to understand how people become attached to a place and the social community. However, it is noticeable in the reviewed literature that sociologists separate the natural world from the place.

For sociologists, the disposition to feel place attachment is dependent on physical and social characteristics of the place (Mesch & Manor, 1998; Human & Cuba, 1993). Milligan (1998) suggests that personal experiences also contribute to one's place attachment. I discuss these helpful findings, while pointing out

their failure to mention the natural world, which is important when discussing a sense of place that links to environmentally responsible behavior.

The sociological research conducted by Mesch & Manor (1998) examined “to what extent people are connected to place and to what extent social ties and environmental perceptions affect place attachment” (p. 505). Mesch & Manor studied Israeli residents of Haifa (n=496) and how these people defined their attachment to place. The participants and researchers identified that physical components of place impacted the people’s place attachment. It is encouraging for environmentalists that the physical place was found to play a role in developing the emotional bond. However, the physical place referred to human-made structures, and the study makes little or no mention of the natural ecosystem in which the people lived. It will be necessary to include the natural and ecological aspects of the physical space in studies of the emotional bond between places and people before we can understand how a sense of place is developed, sustained, and then linked to environmentally responsible behavior. In addition, it would be interesting to identify similarities of place attachment between residents of Israel and residents of the United States.

Another factor contributing to one’s place attachment and emotional bond to place is one’s direct experience in the place. How experiences help develop feelings of attachment to a place was studied by Milligan (1998), a sociologist from University of California at Davis. She defines place attachment as the emotional bond to place developed through an interactional process comprised of two components: the interactional-past and the interactional-potential. The

interactional-past is made up of memories associated with the place, and the interactional-potential is made up of future experiences that may occur. Milligan makes it clear that individuals' memories help create the emotional bond to place. This insight is helpful, as it suggests that direct experience in a place can yield memories, which enhance one's attachment. This confirms Sanger's (1997) notion that sense of place is grounded in direct experience. Raffan's (1993) research also supports the idea that direct experience helps develop emotional attachment to place.

The feelings associated with the interconnection between place and self were researched by Hummon and Cuba (1993). The authors sought to provide insight into the link between place identity and the varied factors that may contribute to this identity (N=437). The factors they looked at were interpretive place affiliations, local social participation, spatial activity, and demographic background. Hummon and Cuba define place identity as "an interpretation of self that uses environmental meaning to symbolize or situate identity." Place identity arises out of both the qualities of the place and the characteristics and relationship of people to places. It is thought to arise because "Places, as bounded locales imbued with personal, social, and cultural meanings, provide a significant framework in which identity is constructed, maintained and transformed" (p.112).

According to Hummon and Cuba's (1993), there is a social and physical aspect to place identity. Once again, though, the inherent ecosystem that exists in the physical place they were studying was missing from their discussion of the physical context of the place. When they spoke of environment, they were

referring to structures that humans created or to human's physical belongings. Their study of place attachment indicates that the participants' levels of social involvement impacted their relationship with the associated place, whether it is their dwelling, community, or region. The results also indicated that a person's dependence on the social characteristics of a place, including a person's level of social involvement, is another factor contributing to the disposition of feeling attached to a place. It was encouraging for EE that the results indicated that the social aspect of the community's role helped develop a person's attachment to place, because this informed EE educators that they ought to integrate community into their curriculum.

The sociological empirical research suggests that place attachment is developed through social interactions with the local human community in the place. The social dimensions of place attachment begins contributes to the conceptual and empirical foundation of the received view of sense of place. However, there is little reference to the non-human world in the place attachment literature, instigating the need for research on the disposition of place attachment within the context of a sense of place that leads to environmentally responsible behavior. Next I review the literature that discusses sense of place and environmentally responsible behavior that results from knowing a place ecologically.

**Ecological Knowledge leads to Ecological Identity, which leads to**

**Environmentally Responsible Behavior**

**People who have a sense of place have knowledge of how local ecological**

and social processes form the place (Barry, 1995; Berry, 1977; Kemmis, 1990; Leopold, 1949; Orr, 1992). In this section, I first define ecological knowledge. After that, I examine the literature that supports the notion that one's knowledge of ecological processes contributes to one's identity and to environmentally responsible behavior.

### *Ecological Knowledge*

The crucial and perhaps only and all-encompassing task is to understand place, the immediate specific place where we live. The kinds of soils and rocks under our feet; the source of waters we drink; the meaning of the different kinds of winds; the common insects, birds, mammals, plants, and trees; the particular cycles of the seasons; the times to plant and harvest and forage--these are the things that are necessary to know. (Sale, 1985, in Barry, 1995)

Ecological knowledge includes knowing the processes that created and sustain the local ecological community, and being aware of how these processes interact together as a system. An ecosystem has been described as "the sum of all the biological and non-biological parts of an area that interact to cause plants to grow and decay, soils or sediments to form, and the chemistry of water to change" (Aber & Melillo, 1991, p. 3). Systems thinking can be used as one approach to understand how living communities are balanced and stabilized through circular feedback loops that are scale dependent, and can be viewed from a local perspective, expanding out to a biosphere perspective. This approach to thinking about ecology works to discover the interconnectedness and interdependence of all living beings (Senge, 1990).

Watersheds are an example of the interconnectedness of one type of bounded system. They are a product of geological processes that shaped the land, the soil that exists on the land, and the origin and destination of the running water.

The specifics of the water and soil play a significant role in dictating what organisms can live and flourish in a place (Aber & Melillo, 1991). An educational brochure published by the Environmental Protection Agency (EPA) defined a watershed as:

The land that water flows across or under on its way to a stream, river, or lake. Rivers, lakes, estuaries, wetlands, streams and even oceans can serve as catch basins for surrounding land. Watersheds are nature's way of dividing up the landscape, a division that often fails to coincide with our political, social, and economic boundaries. (EPA, 1999)

Systems thinking helps understand the complex makeup of watersheds, and watersheds are important in systems thinking about ecology because they illustrate the interconnectedness of different regions.

In understanding the interdependency of all the aspects of a particular landscape, one can begin to comprehend how an impact in one area can affect another area, and ultimately may affect an entire watershed, system, or the entire earth. Understanding watersheds is an example of how ecological knowledge and systems thinking integrate to inform a person about how a place was formed and how he or she should live in that place. This shows how ecological knowledge and social knowledge interact to develop one's sense of place.

### *Ecological Identity and Environmentally Responsible Behavior*

According to the received view, if one knows how the local ecosystem works, then one will know how to act so as to maintain the integrity of the system (Leopold, 1949). This assumes that if one knows how to behave responsibly, then one will act accordingly (Barry, 1995; Berry, 1977; Kemmis, 1990; Leopold, 1949; Orr, 1992). In the next section, I introduce the foundational components of this assumption: if we identify ourselves with the land, then we "fit" our behavior

to the “needs” of the land, as part of ourselves.

Snyder (1990) claims that ecological knowledge contributes to a feeling of belonging to a place:

The presence of this tree signifies a rainfall and a temperature range and will indicate what your agriculture might be, how steep the pitch of your roof, what raincoats you’d need...If you do know what is taught by the plants and weather, you are in on the gossip and can truly feel more at home. (p.38)

Barry (1995), like Snyder, states that knowing a place leads to feeling at home there. “By getting to know the environmental aspects of our region,” he says, “we can acquire a deeper sense of home, a deeper knowledge of what makes our home and our existence what it is. We can reinhabit and become native to our bioregions” (p.82).

The sense of place literature makes a distinction between reinhabiting and residing on the land; in order to learn about the land, people must reinhabit the land, versus residing in it:

Reinhabiting the land involves becoming native to a place, learning what its unique characteristics and needs might be, and what kinds of human activities it might support if we were to fit ourselves to the land, not require the land to bend to our demands. (Andruss, Plant, Plant, & Wright, 1990, p. 104)

According to the literature, dwelling in a place leads to good inhabitance, which requires “Detailed knowledge of place, the capacity of observation, and a sense of care and rootedness... it is intertwined with knowledge of who you are” (Orr, 1992, p.30). The relationship between a person and a place refers to the mutually shaping processes that occur between a place and a person’s behaviors and lifestyle.

David Orr (1992) defines having a sense of place as having an “intimate, organic, mutually nurturing relationship with a place” (p.30). Wendell Berry (1977), a farmer and author in Kentucky, claimed that a person who has a developed sense of place is aware of the “mutually shaping” relationship that exists between self, place and community:

We and our country create one another, depend on one another, are literally a part of one another; that our land passes in and out of our bodies just as our bodies pass in and out of the land; that we and our land are part of one another, so all who are living as neighbors here, human and plant and animal, are part of one another, and so cannot possibly flourish alone; that, therefore, our culture must be our response to place, our culture and our place are images of each other and inseparable from each other, and so neither can be better than the other. (p. 22)

In Berry’s conception, an intermeshing occurs between the environment and people, and the human group in a place is partly defined by the relationship with their environment (McTaggart, 1993). This enmeshment and interdependency between a people and a place is supported by Raffan’s research (1993).

Raffan studied indigenous Canadian people’s connection to place and their willingness to protect the place from degradation. His methodology included three types of findings: written texts (literature), spoken texts (interviews), and experiential texts (a three-week solo stay in the land of the native peoples). He concludes that sense of place appeared to constitute an “existential definition of self” among the indigenous people of Canada; when people recognize that the land is part of the self, they are more inclined to protect the land, as they would protect themselves. Raffan found that sense of place arose out of four processes: a) place names based on personal or family experience on the land, b) narrative storytelling, c) experiential links to the land, and d) a spiritual bond between



people and place. He concludes that it is important for humans to recognize how they are intricately embedded in the natural world in order for them to treat the place more responsibly.

Many indigenous people appear to be more aware of an enmeshed relationship with the land than people who live in the Western culture typically are. Spiritual beliefs and ways of life of indigenous cultures shape their perspective of, and connection with, the natural world. One way the landscape shapes the local people's lifestyle is through the interdependent relationship between the landscape and the language, as Cajete explains:

People make a place as much as a place makes them. Indian people did indeed interact with the places in which they lived for such a long time that their landscape became a reflection of their very soul. So phrases such as "Land of the Hopi" or "Land of the Sioux"...have a literal dimension of meaning, because there was a co-creative relationship between the Indian people and their lands...Through long-term experience with the ecology of their lands, and the practical knowledge that such experience brings, they interceded in the creation of habitat and the perpetuation of plant and animal life toward optimum levels of biodiversity and biological vitality. (Cajete, 1994, p. 44)

Barry Lopez (1986) spent time in the arctic with Eskimos and observed their awareness of their culture's emergence from a relationship with the landscape. He points out how in the arctic, the sea and ice create a constantly changing landscape, and therefore the Eskimo language is rich in verbs.

In contrast, in the mainland United States, Western culture is rich in nouns. Lopez points out how the land informs the people's way of life: Language is not something man imposes on the land. It evolves in a conversation with the land... A long-lived inquiry produces a discriminating language. The very order of the language, the ecology of its sounds and thoughts, derives from the mind's intercourse with the landscape. To learn the indigenous language, then, is to know what the speakers of the language have made of the land. (p. 278)

Lopez observes storytelling as a critical way that Eskimos transmit cultural and landscape information to new generations or visitors. "Over time, small bits of knowledge about a region accumulate among local residents in the form of stories... These narratives comprise for a native an intricate, long-term view of a particular landscape" (p.271). The way of knowing through a relationship with the landscape is evolved over time; therefore the storytelling provides a historical context for the knowledge.

The indigenous people studied by Raffan (1993), Cajete (1994), and Lopez (1986) are aware of the interdependent relationship between the self and the place. Although these pieces of literature show how people who are connected to the land inherently have an awareness of their interdependent relationship, these pieces of literature draw upon a different time and different way of living. Lopez writes: "This archaic affinity for then land, I believe, is an antidote to the loneliness that in our own culture we associate with individual estrangement and despair" (Lopez, 1986, p. 266). But many questions arise regarding how these authors' conclusions can be inferred for people in Western culture.

Hasdeen (2001) discusses how indigenous people view the self as part of the natural world, which leads to environmentally responsible behavior. She argues that in today's society, peoples' perceptions of self and other in relation to the natural world maintains a separation that leads to destructive behavior. She states that an ontological shift in how we perceive ourselves, drawing on spiritual perceptions, would transform our perceptions and make them more inclusive.

Like Hasdeen, Barry (1995) discusses how a lack of awareness of the connection between a place and a person could lead to destructive environmental behavior:

The human and environmental crises of today's world are largely of this lack of a sense of place. We have lost our sense of place primarily because we have little concept of our vital ties to the non-human world: we do not really know the completeness of our immersion in the processes and interactions that characterize the natural world. (p. 79)

Barry supports the notion that awareness can lead to environmentally responsible behavior: "Only when we find our dwellings and our places, through awareness and an open mind, can we inhabit our continent, and live meaningful, sustainable lives" (p.83). One cannot inhabit a place if he or she does not know the local ecological processes. Leopold (1949) agreed: "Perhaps the most serious obstacle impeding the evolution of a land ethic is the fact that our...system is headed away from, rather than toward, an intense consciousness of the land" (p.261). In order to be able to live in accordance with a place, one must know what to expect ecologically.

Contributing to the empirical knowledge of sense of place and the need for ecological understanding, Hay (1998), a geographer, conducted a cross-cultural

research study of indigenous people's and modern people's sense of place in New Zealand (N=270 residents and N=80 outmigrants). He defined indigenous people as "native to the region with a tribally based culture," and modern people as people who "have a complex technology, a specialized work force, are more urbanized, and have an economy more associated with consumer goods and international trade networks" (p.247). He researched people's feelings of belonging to place and to the community. He found that people most liked physical and social attributes of the place. "Scenery (51 percent); peace/ slow pace (46 percent); people/ community (42 percent); nature(33 percent); and beaches/ the sea (29 percent).

Hay's study suggests that the natural world contributed to the people's attraction to the place. He concludes that people felt a strong sense of feeling like they belonged to a place after long-term residence. "Long-term residents on the Peninsula were found most often to be embedded in their place, placed both on the land and in a community. From this rooted context, they found their place in both the social order and the world, demonstrating the importance of situatedness" (p.261). In addition, he states that indigenous people's sense of place is rooted in a spiritual cosmology that forges connections between the self and nature. He also concludes that modern people do not experience a sense of community or place because of their increased mobility, which disrupts the development of key community members and continuity. He suggests that:

To achieve sustainability, more members of modern society need to renew their ties to place. To develop local ecological knowledge and concern, to create sustainable communities that endure and prosper in the face of economic restructuring, more people therefore need to reconnect with the

place that they call home, valuing the ancestral heritage that comes with developing and maintaining a rooted sense of place. (p.264)

Although Hay mentions that the non-human community had only "some" importance while the social components were "highly influential," he still makes reference to the importance of one's sense of place for environmentally responsible behavior.

In conclusion, according to the literature, ecological knowledge can lead to ecological identity, which can lead to ecologically responsible behavior. This is depicted in David Orr's (1992) model: I know, I care, I'll do something. He elaborates further: "The ecologically literate person has the knowledge necessary to comprehend interrelatedness, and an attitude of care and stewardship. Such a person would also have the practical competence required to act on the basis of knowledge and feeling" (p.92).

One interpretation of acting environmentally responsible in a place as a result of knowing the place is the concept of living bioregionally. In the next section, I further define living bioregionally as a conscious, social decision to act responsibly as a result of ecological knowledge and identity.

Sense of Community Leads to Social Identity, which leads to

Environmentally Responsible Behavior

The core of the bioregional idea is people living within the limitations and possibilities of a natural place so that the natural integrity and well being of that place and its inhabitants are preserved... The bioregional idea fuses two components: humans and nature. (Dodge, 1981)

The ecological nuances of a place create the unique defining characteristics of the place, as well as defining who inhabits the place and what

can be done there. Ecological knowledge includes knowledge of local non-human activities and systems. Social knowledge includes knowing the local human community. According to the received view of sense of place, social knowledge emerges from intimacy with the local ecology. The knowledge of social processes includes knowing local politics, community issues, human activities, and economics. The notion that people can live socially and politically within the confines of the local ecosystem is further explored in bioregionalism (Snyder, 1990; Barry, 1995; Kemmis, 1990; Kemmis, 1998; Tomashow, 1995; Haas & Nachtigal, 1998; McTaggart, 1993).

According to the received view of what sense of place is, bioregionalism and sense of place are very similar, except that bioregionalism focuses more on the political involvement and citizenship aspects of environmentally responsible behavior that emerge from having a sense of place, and understands them as behaviors that are in accordance with the natural limits of the bioregion. Bioregions are bounded by both ecological and social processes. People who take an ecological approach to geographically defining a bioregion delineate boundaries by ecologically significant natural formations such as watersheds (Dodge, 1981; Snyder, 1995).

Bioregionalism is a way of understanding the local ecological and social processes and using this knowledge to live and act in environmentally responsible ways. Barry(1995) defines what it means to live bioregionally as:

When one understands the basic ecological processes as well as the human cultures, economies, and histories that characterize a region, one can act and live in a manner that is compatible with the ecological flow: going with the current, living and letting live, and existing in a mentally and

environmentally sustainable way of life. (p.82)

Daniel Kemmis (1990) also supports the idea of living bioregionally and explains how this can contribute to one's public involvement and citizenship. "Too often, the lines cut across natural units of inhabitation, leaving inhabitants cut off from each other in terms of their capacity to act together politically, to will a common world," he writes (p.120). He points out how the people of Montana recognized that their politics could not be separated from the landscape in which they lived. He begins his book, *Community and the Politics of Place*, with a quotation from the preamble of Montana's state constitution:

We the people of Montana, grateful to God for the quiet beauty of our state, the grandeur of its mountains, the vastness of its rolling plains, and desiring to secure to ourselves and our posterity the blessings of liberty for this and future generations do ordain and establish this constitution. (p.4)

Social processes such as government and citizenship should, and often do (even if the connection is not noticed) develop out of ecological knowledge.

Tomashow (1995) also supports the connection of public life with local ecological systems. He explains that

The basic premise of bioregionalism implies that ecological consideration should determine cultural, political, and economic boundaries...The important concept is that the local ecology should determine the political economy...Bioregionalism asks people to notice where things come from, how basic patterns of everyday life are embedded in an ecological web....Bioregionalists advocate regional self-reliance, using local resources whenever possible; making local decisions; living within sustainable, ecological limits. (Tomashow, 1995, p. 61)

Both Tomashow and Kemmis (1990) support living bioregionally because they believe that if local politics are more place-based, then the people of the community will feel more empowered to become involved. In addition, since

living bioregionally embodies the assumption that knowing the ecological processes of a place will lead to environmentally responsible behavior, Tomashow and Kemmis argue that empowered people will make public decisions that benefit both the local ecological and social processes. Some bioregionalists argue that “self government must find its roots in a particular place” (Haas & Nachtigal, 1998, p.8). Furthermore, “revitalization of public and economic life must be accomplished in the context of specific places. It depends upon a working understanding of what the place can feasibly produce, which at the same time, many of the residents want or need” (Kemmis, 1990, p.88-89). By connecting politics and people through the commonality of land, people become empowered to engage in informed citizenry and local governance (Kemmis, 1998).

Geographer McTaggart (1993) states that the objectives of bioregionalism are to ensure citizen involvement and power in decision making in local issues. The community itself can assess the needs and potential for sustainable processes in production and consumption activities. However, in order to assess what is ecologically possible and sustainable, the members of the community must understand the economic, political, and ecological limits within a naturally delineated area.

According to the literature, when a person has ecological knowledge of a place, and has knowledge of a community, then he or she will act environmentally responsible within the natural limits of the local systems. Acting environmentally responsible in this interpretation includes active citizenship. The received view



states that if people are connected to politics through the commonality of the land, they will be empowered to make political decisions with consciousness of the land and the people.

### **Inadequacies of the Received View**

Sense of place is received as a concept that encompasses place attachment; ecological knowledge and identity leading to environmentally responsible behavior; and a sense of community, which facilitates the development of a social identity, which leads to environmentally responsible behavior. This received view evolved out of both the empirical and conceptual literature. Although the literature introduces the concept, it is inadequate in its simplicity and lack of explicit reference to ethics. The inadequacy initiated the need to strengthen the empirical and conceptual underpinnings of sense of place and how it is linked to environmentally responsible behavior.

First, the literature has provided a clear picture of what a person with a sense of place looks like, but has not provided a well-developed understanding of how sense of place is developed and sustained. Secondly, the literature has not clearly outlined how and why a person who embodies ecological knowledge would actually act accordingly to their knowledge. In other words, how does sense of place lead to environmentally responsible behavior?

### ***Questioning How Sense of Place is Developed and Sustained***

The received view of sense of place lacks in providing a clear conceptual and empirical foundation to how sense of place is developed and sustained. How place attachment is developed with relation to the natural world requires some

examination. The construction of ecological and social knowledge and how this contributes to one's development of ecological and social identity is implied but not developed. And ultimately, (examined in the forth-coming section) is the question, how do these attributes yield environmentally responsible behavior?

The "place attachment" empirical research contributes to our understanding that people become attached to a place through experience and social involvement. The disposition to have an emotional bond to a place is supported by empirical evidence that indicates there are physical and social factors contributing to place attachment. What is missing from the place attachment empirical research is the inclusion of non-human beings in the place attachment framework, the investigation of how the social context of a place can shape a person's attachment to a place, and the investigation of how place attachment can contribute to a sense of place that yields ethical action.

The empirical research and the conceptual literature supported the notion that through interactions with the human and non-human community, ecological and social knowledge was developed over time, and therefore contributed to one's sense of place. Two empirical studies referred to the indigenous communities of their participants as being their social context for developing a sense of place (Raffan, 1993; Hays, 1998). Raffan's study clearly depicted how social interactions contributed to the development of sense of place, primarily through story-telling. In addition, he attributed care for the land among study participants to their feeling that the land and the self are unified. His study is helpful for EE,

but inspires questions about the differences between indigenous and modern cultures.

Hay's study (1998) socially situates the development of one's sense of place, and clearly delineates differences between indigenous cultures and modern cultures. He concluded that indigenous cultures have a sense of community and rootedness in a place, and that modern cultures do not. He attributes modern people's lack of sense of place to their residential mobility and to lack of continuity of people in a community.

Since both Hay (1998) and Raffan (1993) researched indigenous cultures, I question whether people in Western cultures can be assumed to have a similar awareness of the land as indigenous cultures, given the detachment between the land and the Western way of life. There are many spiritual and ethical differences between the ways Western cultures and native cultures perceive the non-human communities where they live. Questions arise as to whether Western culture can embody a spiritual cosmology that forges connections between self and nature, or even self and other. This question led me to select as participants in my study people who are embedded in the spiritual and ethical beliefs of Western culture but who are also connected to the land by virtue of their professions.

In addition, Hay does not clearly show *how* the social context contributes to sense of place, and does not clearly show how these social interactions contributes to the development of a sense of place that yields environmentally responsible behavior. Next I state the inadequacies of the claim that sense of place can lead to environmentally responsible behavior.

*What is the Ethical Link between Sense of Place  
and Environmentally Responsible Behavior?*

An under-developed ethic is implicit in the sense of place literature that states that if people know a place, then they will automatically care about it, and will therefore do something to protect it. How does someone move from knowing to caring, and ultimately toward environmentally responsible action? Although the model of “I know, I care, and I’ll do something” is very attractive, it is overly simplistic. Sense of place and its relationship to environmentally responsible behavior is a much more complex concept and phenomenon. The received model does not consider the complexity of living in Western culture, where other economical and social processes impact one’s ethical considerations and actions.

What is currently missing from the literature is a well-developed framework that integrates environmental ethics into the concept of sense of place and its link with environmentally responsible behavior. More specifically, what is conceptually and empirically lacking is more attention to how an ethic is developed and sustained and then what motivates ethical action.

Some of the literature does begin to touch on an environmental ethic, implying a connection between having a sense of place and environmentally responsible behavior. However, these implications are rooted in an ethic that is inherent in the researched and observed indigenous tribes, where the natural world is viewed as part of their identity (Cajete, 1994; Lopez, 1986; Raffan, 1993). The link between sense of place and environmentally responsible behavior requires conceptual and empirical strengthening to apply to Western modern cultures.

### *Conclusion*

The received view of the concept of sense of place is sufficient in that it has developed a framework from which to begin to understand the concept of sense of place and to begin to ask important questions. However, the model is inadequate as a description of the social context in which sense of place is developed, and the environmental ethics and moral theory that could inspire environmentally responsible behavior. The purpose of this study is to strengthen the conceptual and empirical foundations of how sense of place is developed and sustained, and how it is linked to environmentally responsible behavior. In order to understand this link, the study must identify what motivates people toward ethical action, information that is crucial for environmental educators.

## **CHAPTER TWO**

### **METHODOLOGY**

The purpose of this study was to strengthen the conceptual and empirical foundations of sense of place and to identify links between sense of place and environmentally responsible behavior. The intention behind this inquiry was to help environmental educators better integrate the concept of sense of place into their curricula as a way to facilitate environmentally responsible behavior more effectively. To that end, I conducted this research among people whose work was deeply embedded in the land and sea. I conducted a grounded theory inquiry that focused on the experiences of five commercial fishermen and five organic farmers, utilizing a series of phenomenological interviews with each of the participants.

In this chapter, I briefly introduce both grounded theory and phenomenological qualitative methods. Next, I discuss the research questions that guided this inquiry. The proceeding parts of the chapter provide a more in-depth description of the methodology. I begin with an introduction to the site selection, the organic farming and commercial fishing context, and the participants. Then, I provide a more in-depth description of the grounded theory and phenomenological approach to data collection and analysis. I conclude by discussing how I manage validity, and then present the methodological limitations of this research.

### *Introduction to the Research Methodology*

The intent of a grounded theory study is to generate or discover a theory, an abstract analytical schema of a phenomenon that relates to a particular situation. This situation is one in which individuals [the participants] interact, take actions, or engage in a process in response to phenomenon. (Creswell, 1998, p. 56)

This was a grounded theory study in that I generated a theory of sense of place from interviews and observations that inquired into how the participants lived with and reacted to the phenomenon of sense of place.

Strauss & Corbin (1998) describe grounded theory as theory that was derived from the data, systematically gathered and analyzed through the research process... In this method, data collection, analysis, and eventual theory stand in close relationship to one another. A researcher does not begin the project with a preconceived theory in mind.... Rather the researcher begins with an area of study and allows the theory to emerge from the data. (p.12)

I began with an initial conceptual framework that was based upon theoretical literature. However, after conducting empirical research into the lives of the commercial fishermen and the organic farmers, the concept of sense of place “came alive.” Although I began with an initial conceptual framework of sense of place, the theory emerged and changed as I worked with the data. Therefore, during the collection and analysis, as I interacted and collected data from the participants, I kept the initial framework at a distance in order to remain open to new ways of understanding the data. I conducted the inquiry with a fresh perspective, to allow a new theory to be

generated. The results of the data did actually support the initial conceptual framework, but also expanded upon it and strengthened our conceptual understandings.

Phenomenology and grounded theory are very closely linked, in that both approaches attempt to develop a theory that is based in reality. “A phenomenological study describes meaning of the lived experiences for several individuals about a concept” (Creswell, p.51, 1998). I conducted the major part of my data collection through a series of in-depth phenomenological interviews. The purpose of the phenomenological interviews was to gain an understanding in how each participant viewed sense of place in his or her life. Seidman (1998) states “The purpose of in-depth interviewing is not to get answers to questions, nor to test hypothesis, and not to ‘evaluate’ as the term is normally used. At the root of in-depth interviewing is an interest in understanding the experience of other people and the meaning they make of that experience” (p.3).

The grounded theory was combined with the phenomenological approach in an effort to allow both to generate a new theory from analyzing the data, to identify how the participant interacted with his or her sense of place, and to discover how the participant understood his or her sense of place. Both methodologies were needed, because not all participants could articulate their own understanding of their experience. The nature of the phenomenological interviews encouraged in-depth disclosure to whatever depth the participants were capable of discussing a felt sense of place, and for



the participants to make their own meaning of their experiences. However, in situations where the participants could not verbalize their sense of place, the grounded theory method enabled me to make an in-depth analysis of how sense of place was enacted in their lives.

Later in this chapter, I provide a more detailed presentation of the questions I asked in the interviews and the way the data was coded and analyzed. However, now I briefly provide the reader with the guiding questions themselves and a description of the site selection.

### *The Guiding Research Questions*

By inquiring into the lives and daily labor of people who have an intimate relationship with the sea and land, I hoped to determine the role played by ecological and social processes in an individual's connection to place and in their behavior. I directed my research into the concept of sense of place by inquiring into these topic questions:

- What is the sense of place held by members of these two communities?
- How were these views formed? How are they sustained?
- How do the senses of place held by these communities affect their behaviors and to what extent is their behavior environmentally responsible?
- What motivates people to move from knowing to caring, and then to environmentally responsible behavior?
- What are the implications of these findings for environmental education?

### *Site Selection*

As a Ph.D. candidate at the University of New Hampshire, it seemed most appropriate to choose a local site in the coastal region of northern New England. Because I was interested in developing a deeper understanding of sense of place, I chose land-practitioners as a defining population. I purposefully selected these participants for this study based upon the nature of their professions, which were intricately linked to the local natural resources (I will provide a more in-depth definition of purposeful sampling in the participant section). The two communities chosen for this study included organic farmers and commercial fishermen, based upon my intellectual assumptions regarding the differences between the two population's goals and values. These communities are not unique to northern New England, and are comparable to other coastal communities where there is a growing season for vegetables and a commercial fishing industry. The similarities between regions can enhance the transferability of this study.

First, I will introduce the place: the northern New England coastal region of the United States. Secondly, I will more specifically describe the broad cultural, political, and regional context of organic farming and commercial fishing.

The participants of this study inhabit a coastal community in New England. Ecologically, the seacoast area has wetlands, estuaries, and inter-tidal zones. As one travels inland, the landscape quickly transforms into a common northern hardwood forest, consisting primarily of maples, oaks,

beech, and in some cases, white pine and hemlock. The geography and local ecology help define the historical culture of this region. The combination of the ocean and the rolling fertile hills led to the settling here of farmers and fishermen in the 1600's. These two professions provide a localized introduction to the region's environmental, cultural and political context.

As mentioned above, I selected these two communities from the local region because they are land practitioners, and I expected that they would have different goals and values. I wondered whether sense of place was a valuable concept to integrate into environmental education curricula because I had interacted with people who extracted natural resources and had developed an amazing sense of place, but who could not be considered to be environmentalists. Therefore, I wanted to examine two different populations, one population who is considered to be ecological and sustainable, and one population who is considered to be a resource extractor. In my experience, fishermen have the goal of harvesting fish and making money. Organic farmers have a mission to sustainably grow food without synthetic chemicals for long term agricultural production and to preserve the soil. I assumed that there were basic differences, but I found that the communities were not so different.

### *Organic Farming*

In this section, I first provide a general ecological and political overview of agriculture in the northern New England coastal region. I specifically introduce organic farming as a philosophy, along with the

associated federal standards. In addition, I define terms associated with organic farming. Last, I present some of the challenges that organic farmers currently contend with.

Agriculturally, the community I studied lives among what was once considered some of the most productive land among the surrounding states. Because of the nearby coast, it benefits from a microclimate-growing zone that is comparable with New Jersey's growing zone, allowing for a longer growing season than on nearby land which is inland. In addition, the soil in this region is very fertile, due to the geologic and ecological formations of the place.

The initial agricultural settlements have decreased throughout the nineties, leading to a dramatic cultural change. One of the two major causes of decreased agricultural land is attributed to farm abandonment at the turn of the 19<sup>th</sup> to the 20<sup>th</sup> century and subsequent reforestation. Farm abandonment was due to the fact that a majority of farmlands were small family dairy farms, which could not compete with the Midwest dairy farming industry (Wessels, 1997). The second cause of a decrease in farmland is due to urban sprawl. According to the Sierra Club sprawl web-site, the number of acres in New Hampshire farmland has decreased by 15% between 1982 and 1992: "Sprawl destroys parks, farms, and open space. Sprawl destroys more than one million acres of parks, farms and open space each year [in the United States]" (Sierra Club, 2001). Consequently, land is a limited resource for farmers. Development has begun to affect the availability of farmland, as well as the

affordability of farmland. Many farmers cannot afford to pay the amount of money a developer could pay for a piece of land. Additionally, many farmers find it more profitable to sell their land to a contractor than to grow produce on the land.

The decrease in farms has aesthetically and culturally changed the Northern New England culture. However, recently, there has been an increase of small family farms (1-70 acres) between 1982 and 1997, though over-70 acre farms have steadily decreased (The American Farmland Trust, 2001). Among these small farms are organic farms.

There are conventional farms, transitional farms, and organic farms among New England's small farms. In this study, I selected organic farms because of their underlying ecological and sustainable philosophy. The National Organic Program (2000) defines organic food production as: A production system that is managed in accordance with the Act and regulations in this part to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. (USDA, 2000) (see web-site [www.ams.usda.gov/nop/](http://www.ams.usda.gov/nop/) for an overview of the National Organic Program).

The 'Act' refers to The Organic Foods Production Act of 1990, whose purpose was to establish national standards (see web-site [www.ams.usda.gov/nop/orgact.htm](http://www.ams.usda.gov/nop/orgact.htm) for the overview of the Organic Foods Production Act).

In an article published by the USDA's Economic Research Services (2001), organic farming practices are defined as:

A system which relies on practices such as cultural and biological pest management, and virtually prohibit synthetic chemicals in crop production and antibiotics or hormones in livestock production. For example, organic farmers provide habitat for predators and parasites of crop pests, calculate planting/harvesting dates and rotate crops to maintain soil fertility, and cycle animal and green manures as fertilizer. (para 5)

A synthetic chemical is defined as "a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral sources" (USDA, 2000). Fertilizers and pesticides created by naturally-occurring biological processes are allowable in organic farming practices. The reason people choose to farm organically is to grow food sustainably for the long term, and the long term goal is to build and maintain soil. The soil is treated like an organism.

Maintaining and "building" the soil and preventing pests are big parts of managing an organic farm. Building the soil refers to fertilizing the soil in ways that consist of adding amendments which provide a sustainable soil ecosystem. Crop Rotation is one method to build soil and reduce pests. With this technique, organic farmers alternate the annual crops from one field to another so that crops of the same species are not grown repeatedly without interruption on the same field. In crop rotation, there will be some fields that lay fallow for the season. During this season, this field is planted with "green manure," or cover cropping. Green manure is a way of fertilizing the soil, and

a crop such as winter rye will be planted while the field is out of production. The winter rye captures the nutrients that are in the soil so that they do not run-off, and at the end of the season, the rye is turned back into the field, rather than harvested. This way the nutrients that were consumed by the plant are recycled back into the soil.

The differences between conventional farming and organic farming extend to the way in which the soil and the ecosystem are treated in the process of food production. In organic agriculture, there are standards which the farmer must meet to be considered organic, established as aforementioned by a federal agency, the USDA. However, organic certification occurs on the state level by the local Department of Agriculture (see a local state's Department of Agriculture web-site for definitions and requirements).

Organic certification is important for farmers to have if they are to sell their produce as organic. The organization that organizes the local Farmer's Markets referred to in this study prohibits people who are not certified organic to advertise their produce as organically grown. They are concerned with standards that customers come to expect when purchasing "organic" produce.

During the organic certification process, a state inspector visits the farm and the farmer. The farmer needs to meet a variety of criteria in order to remain certified. The state certification process happens yearly for the different sorts of products that are sold by the farmer and requires a tremendous amount of paper work. Among the paper work, the farmer has to provide the inspector with evidence of past crop rotations, show the lack of

synthetic chemicals, and present future plans for crop rotations. An organic farmer cannot become certified if chemicals had been used within three years on the land prior to certification. If the farmer produces eggs, vegetables, or canned foods, these all require separate certification.

Other practices associated with organic farming are biodynamic farming and permaculture, which two of the participants refer to in their narratives. Biodynamic farming is a spiritual approach to farming, which is adhered to more by people in other countries than in the United States. It requires people to think outside of a typical mentality and to enter a more ethereal way of working with the land. The prescriptions of this technique are very in-depth and can be found on the biodynamic web-site

(<http://www.biodynamics.com/biodynamics.html>).

Biodynamics is a science of life-forces, a recognition of the basic principles at work in nature, and an approach to agriculture, which takes these principles into account to bring about balance and healing. In a very real way, then, Biodynamics is an ongoing path of knowledge rather than an assemblage of methods and techniques. Biodynamics is part of the work of Rudolf Steiner, known as anthroposophy -- a new approach to science, which integrates precise observation of natural phenomena, clear thinking, and knowledge of the spirit. It offers an account of the spiritual history of the Earth as a living being, and describes the evolution of the constitution of humanity and the kingdoms of nature. (Wildfeuer, 1999)

Permaculture is another approach to farming that is specifically geared toward lower labor intensity as well as working with the specific farmland, or garden, that one is growing produce in.

Permaculture is about designing ecological human habitats and food production systems. It is a land use and community building movement which strives for the harmonious integration of human dwellings, microclimate, annual and perennial plants, animals, soils,



and water into stable, productive communities. The focus is not on these elements themselves, but rather on the relationships created among them by the way we place them in the landscape. This synergy is further enhanced by mimicking patterns found in nature.

A central theme in permaculture is the design of ecological landscapes that produce food. Emphasis is placed on multi-use plants, cultural practices such as sheet mulching and trellising, and the integration of animals to recycle nutrients and graze weeds.

(Appropriate Technology Transfer for Rural Areas [ATTRA], 2002)

As with biodynamics, there is a method to permaculture that is uniquely defined for each individual farm, forest or windowbox, but in addition that there are prescribed methods for implementing the permaculture practices.

In addition to practices that are closely related to organic farming, there are issues that organic growers must contend with in the political, ecological, and cultural climate. Other than lack of land, farmers are faced with the challenges of biogenetic engineered seeds and the application of sewer sludge on farmland. Biogenetic engineering, or genetically modified seeds, is not allowed in certified organic foods. Therefore, the increase of GMO's affects organic farmer's seed availability. Sewage sludge is an issue in some states of New England, due to its legal use on farmland. Although human sludge can be an excellent source of manure, a lot of sludge currently comes from industry and contains high levels of metals, which could be harmful for people.

### *Commercial Fishing*

Currently, the local port towns are more tourist centers than fishing communities. However, historically, these communities were founded on the basis of commercial fishing, specifically for codfish (Kurlansky, 1997).

Today, (1995-1999), there are sixty vessels landing fish in the small coastal community selected for this study. Almost all of the fishing vessels are less than sixty feet, which is considered small to mid-sized: “About half the vessels are gill-netters, and the other vessels either fish with otter trawls or switch between dragging and gillnetting on a seasonal basis” (New England Fishery and Management Counsel [NEFMC], 2001). The commercial fishing community is defined as:

The term ‘commercial fishing’ means fishing in which the fish harvested, either in whole or in part, are intended to enter commerce or enter commerce through sale, barter or trade...The term ‘fishing community’ means a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crewmembers and United States fish processors that are based in such community. (NEFMC, 1976)

The commercial fishing community I study has undergone many changes due to cultural and political change. The government regulations have severely shaped the current attitude and mood of the commercial fishermen. I describe the political and cultural climate in an effort to provide a context for the current-day fishermen’s perspective and attitudes.

More recently, with the Magnuson Act of 1976 and the subsequent ecological changes and political measures, the regulations have heavily impacted the industry and community. I conducted the interviews with the five commercial fishermen in the year 2000. At this time, the fishing industry had undergone a major shift from being a free enterprise in the early eighties to being a heavily regulated and monitored industry. I will describe the

ecological and political steps that led to the increased regulations and the current state of the fishing industry.

The Magnuson Fishery Conservation and Management Act of 1976 established the U.S. exclusive economic zone (EEZ) between 3 and 200 miles offshore, where foreign fishing vessels may not enter and harvest fish. The three miles of ocean between the land and the federal waters is managed by the individual states. The Act also created eight regional fishery councils to manage the living marine resources within that area, for New England the New England Fishery Management Council was born. The Act was passed principally to address heavy foreign fishing, promote the development of a domestic fleet and link the fishing community more directly to the management process. (New England Fishery Management Council, 1999)

This Act in 1976, which excluded foreign fishing vessels within 200 miles of shore, led to an increase the United States fishing fleet's effort on the fishery. Both smaller fishing vessels and wealthy investors buying larger vessels using the fishing industry as an investment increased the catch effort. This resulted in a decline in fish stocks.

The decline in the fish stocks led to the 1996 amendments that were made to the Magnuson-Stevens Act, known as the Sustainable Fisheries Act.

These amendments significantly changed the focus of fisheries management by adding key provisions to:

- prevent overfishing and end overfishing of currently depressed stocks;
- rebuild depleted stocks;
- reduce by-catch and minimize the mortality of unavoidable by-catch;
- designate and conserve essential fish habitat;
- reform the approval process for Fishery Management Plans and regulations;
- reduce conflict-of-interest on regional councils; and,
- establish user fees.(NEFMC, 1999)

According to the NEFMC social impact assessment (NEFMC, 2001), the rolling closures and low trip limits (regulatory discards) are the groundfish regulations that have resulted in the most significant social impacts for these

communities. Trip limits state a total allowable catch per day for a fishing vessel, which can impact the fisherman's income. The 1999 trip limits decreased to an all-time low of thirty allowable pounds of codfish per day. With such a low catch limit, fishermen often had to throw the extras (referred to as discards) overboard. The fishermen refer to throwing discards overboard as "gunning" the fish overboard. Some fishermen left the industry temporarily because they could not ethically throw fish away. Others were forced to leave because their income had been so severely reduced. Other ripple effects include more industry-wide impacts, such as processing plant closures due to lack of income.

Rolling closures were another method used to regulate the groundfish fishery. The area closures are based on spawning times. During the spring, fish populations move up the coast when the water begins to warm and they begin to spawn. When the fish are spawning in a particular area, that area is closed to commercial fishing. This means that the fishing grounds off of New Hampshire are closed for most of April and May. During this time, many of the fishermen dry dock and work on their boats. Others may move to a fishing ground that is open, pursue other forms of work, or partake in their hobbies. Historically, many fishermen made most of their money during the spawning times, and therefore the new regulations also compelled fishermen to suffer from a decrease in income.

The regulations have had many effects on the fishing industry. The primary change is that many fishermen left due to bankruptcy because they

could not pay off their boats and other expenses. The investors left because fishing no longer was a viable investment. Those who could afford to remain were also affected. The New England Fishery Management Council assessed the social impact of the increased regulations. Among the social impacts reported were safety issues, uncertainty of the fishing industry and future regulations, loss of morale, loss of health insurance, constantly changing regulations, negative publicity, and polarization within the fishing industry (NEFMC, 2001).

The safety issues arose from a need to go further offshore to legally harvest groundfish, which is very dangerous in a mid-sized vessel. Additionally, many of the fishermen fish alone because they cannot provide reliable year-round income for crewmembers, creating further danger. As a result of rolling closures, there is less time to plan for days at sea, so fishermen tend to go out in adverse conditions when they previously would have stayed in port.

In addition, the fishermen have a high degree of uncertainty about what will happen next with regulations. First off, they do not feel as though they are involved with decision-making processes. Therefore they feel that laws are imposed upon them. They never know what new law will be enacted, impacting their livelihood. This leads to economic uncertainty. In addition, there are industry-wide concerns.

The uncertainty has affected the fishing industry as a whole, meaning the gear suppliers and the processing plants, which depend on an active fishing industry. Additionally, uncertainty in the viability of the fishing industry has resulted in a decrease number of crew and new

recruits. Fishermen are discouraging their children from carrying on the family tradition due to the stress that they are currently experiencing. (NEFMC, 2001)

Both commercial fishermen and organic farmers are part of these political and cultural climates. They have to adhere to regulation and certification. Providing a terminology and a brief history of these two land-practitioner communities will hopefully contribute to the understanding of the participants' narratives included in both the vignettes and data analysis.

### *Participants*

I selected five fishermen from the local New England Coastal Fisherman's Cooperative (NEFC) and five certified organic farmers who sold their produce and products at local Farmer's Markets. Many of these people do not work year round in these particular associations, however this work is their primary professional identification. In this section I describe how the participants were selected and how trust was developed. Then, I further introduce you to the fishermen and organic farmers who participated in this study.

I purposefully selected the participants on a variety of conditions, as suggested by Maxwell (1996). The fishermen had to have a co-op membership, and the organic farmers they had to be certified organic. Both populations had to have worked in either industry for five or more years and had to work in the profession of farming or fishing for more than half the year. In addition, I selected a cross section of owners, crewmembers, and ages. Maxwell (1996) describes purposeful sampling:

Purposeful sampling...is a strategy in which particular settings, persons, or events are selected deliberately in order to provide important information that can't be gotten as well as from other choices...There are at least four possible goals for purposeful sampling. ...To achieve representativeness or typicality of the settings, individuals...to adequately capture the heterogeneity in the population, to deliberately examine cases that are critical for the theories I began the study with and have subsequently developed...and four, to establish particular comparisons to illuminate the reasons for differences between settings or individuals. (p.70-72).

The intention was to identify a cross section of the population, including multigenerational farmers or fishermen and new farmers or fishermen. The populations resulted in four business owners and one crewmember for both fishermen and farmers. The range of participants for the fishermen included people who had worked in the industry from six years to thirty years. The periods the farmers had been farming ranged from five years to twenty years. This spectrum provided me with both old-timer and newcomer perspectives.

In my proposal, I set out to select as many members as possible who fit my criteria for purposeful sampling. In addition to fitting the criteria, they needed to be willing to participate in the interviews, observations, and informal discussions. Selecting the individuals for the study and encouraging them to become willing was complicated, primarily because I was entering closed communities where the participants of the communities know one another and trust one another. Given the type of research I was conducting, I needed to establish a trust between each participant and myself.

Maxwell (1996) emphasized the importance of the researcher-participant relationship, noting that "the relationship with those you study is a

complex and changing entity” (p.66). Many qualitative research designs emphasize the initial step of gaining access. This is important because I did need to meet the participants and gain their willingness to participate. However, equally important is the continuity of the relationship. I found building and maintaining the research relationship to be the most anxiety producing aspect of the data collection (discussed more in the managing bias section with reference to subjectivity).

I developed initial relationships by obtaining lists of names from a person who was a mutual friend of both the participant and me. This mutual friend was not necessarily a farmer or fishermen, but someone I knew in the region, who had connections with farmers or fishermen, and I came to know this person by spreading the word that I was conducting this research. Then someone would refer me to someone else who supposedly had connections. Eventually I gathered a list of names and numbers, and approached the participants.

The initial interaction usually occurred over the phone, where I would begin, “A mutual friend, ‘Jane,’ referred you to me.” This opening usually led to a series of “Oh yea, she mentioned you would call...” followed by an initial icebreaker conversation in which we shared the whereabouts of our friend, how we both had known the person, and a mutual connection started to develop. I relied on this initial contact to begin a trusting relationship. I also relied on the idea that people love to talk about themselves. Nine out of the ten participants mentioned really enjoying being able to talk about why they



do what they do. It made them feel more proud about what they do, and allowed them to clarify why they do what they do for themselves.

You know, it's like oh yeah shit, have her call me, I will talk about fishing, I am proud of it, I will tell someone about it. (James, #1)

I worked very hard at maintaining a connection with the participants.

For example, one way that I nurtured a relationship can be exhibited with James, the fisherman who is also a writer. Because I knew he loved to tell stories, I promised him both the transcriptions and copies on disc of our interviews. He was very grateful for these and found that he could gain material for his writing aspirations. This mutual giving and taking seemed to be helpful.

To continue a working relationship, I also always offered to help the participant with what they were doing while they were being interviewed; this way they did not feel as though they were wasting time. Some accepted and some declined, but it helped maintain a connection and investment from the participant's point of view. Nine out of the ten research relationships were initiated and developed into a deeper sharing over time, as Seidman's (1998) model suggests would happen (developed further in the data collection section).

I found that after about three interviews with four participants of each population, the same sort of topics and concerns were arising, leading to a saturation of the data. Creswell (1998) defines saturation of the data as when you "Find information that continues to add until no more can be found" (p. 56).

I attempted to conduct three interviews with each participant. However, I knew initially that this was subject to the availability of the person. I was able to conduct three interviews with nine of the ten participants. The tenth participant's third interview did not happen due to lack of economic support and the end of our mutual friend connection. He asked that I be able to provide an economic incentive for the contribution of his time. I could only provide the transcriptions of the interviews, and this did not interest him. In addition, the primary contact that I had met him through had terminated because they had stopped dating. This led to increased difficulties in contacting him. However, as stated before, the data had reached a saturation point. After the fourth participant had gone through the series of three interviews, not a lot new information was generated. In fact, a majority of the interviews said similar information and began to verify the previous data collected and the emerging categories and themes.

### *Organic Farmers*

In the coastal region, there were a limited number of organically certified growers. Most of the farmers were either conventional or transitional, or grew organic produce but did not want to manage the paper work associated with becoming certified. I found four certified organic farms in the local region, and interviewed the owners, and one of the crewmembers.

The organic farmers grew produce, flowers, and unique niche products. The farmers depend upon local customer support and needed to compete for their attention. They do this by creating a niche product that will

attract the customer's attention, and then the customer will buy other produce available at the stand. The five different niche products were eggs, pickles, a community-supported agriculture (CSA), corn, and herbs. CSA's are arrangements where people buy into the farm at the beginning of the year by paying for produce upfront. Then, throughout the growing season they receive a weekly amount of produce.

The main venue for selling produce is both retail and wholesale. Farmers prefer retail because their products sell for more money. The retail market is comprised of their personal farmstands or "Farmer's Markets." Farmstands are on the individual farmer's land, and they depend on local drive-by customers. In addition, they try to have a niche that attracts customers to come to the farmstand, primarily "PYO- Pick Your Own." This may be blueberries, strawberries, or flowers. Farmer's Markets are events where the farmers set up their stand for four to five hours, alongside other farmer vendors, and sell their food to passers-by. The Farmer's Markets are managed by a local organization. Only active members of the organization may sell their produce at the markets, requiring farmer's membership. In addition, in order to be a member, the farmer must contribute service to the organization, such as serving on a committee.

The wholesale markets range from selling to local restaurants, health food stores, produce stores, or to buying co-op's where they auction off food. Selling produce wholesale is not as cost effective, but is more dependable than a passer-by who may or may not decide to stop at the farmstand or the vendor

stand at a market. In the wholesale store-grower relationship loyalty is developed over time, and interdependence. The farmer and store or restaurant owner co-plan what will be grown, bought, and sold.

The prices vary depending on the time of the year, the climate of the particular year, and what crops are abundant or sparse. In the northern New England region, the growing season is fairly short, yielding a tight season where the market can get frequently overflowed with one or two types of produce. In addition, the weather in New England varies from year to year, yielding different types of crop abundance.

#### *Five Organic Farmers*

Like the fishermen, the organic farmers were also comprised of one crewmember and four owners. I met Richie, a male in his mid fifties, at a food-buying co-op where he sold his organic produce. Richie was introduced to farming when he was eighteen years old. A “witch” in California who healed herself from cancer by eating only organically grown food introduced him to the profession. She exposed him to the effects of synthetic chemicals on humans. After learning from her for a few months, he returned to the Northeast where he always had an organic garden. Eventually he bought his own land, with enough acreage to produce extra food. He gave this surplus away until a friend informed him that he could sell his produce at health food stores. Over ten years ago, he left his antique appraising career and began to farm organically full time. Richie taught a course for the local university on organic and sustainable agriculture. He was also politically active to stop

sludge being spread on fields. He sold his eggs and produce at local stores and Farmer's Markets.

Ella, a woman in her mid thirties, was a crewmember on a local organic farm and worked for a CSA. I knew Ella because we had attended the same undergraduate college for two years. She grew up gardening with her grandmothers and did not begin thinking about farming as a career path until she was in college. She became environmentally active and saw organic farming as a way to match her actions with her values. At the time of the interviews she had already owned her own business, apprenticed on various farms, and studied agriculture formally in college. She left her business to informally learn from Stephen, the owner of her farm.

I was introduced to Stephen during my first interview with Ella. Stephen was in his mid to late fifties and had been farming organically for over ten years. He had returned to the Northeast to his grandfather's farm, where he had grown up, with the goal to grow his and his wife's own food and live simply. His grandfather gave him the farmland. Like Richie, he and his wife produced too much food for just their family, so they learned how to sell their surplus at Farmer's Markets. They conventionally grew their food and were exposed to organic growing by other farmer's who encouraged them to transition over to organic farming. At the time of the interviews, his farm had three full time workers and a handful of part time workers. He had a farmstand, a CSA, and sold his produce at local Farmer's Markets. He was beginning to run a farm school during the summer months.

I met Parker at a Farmer's Market, where a mutual friend told me he was an organic farmer. Parker was first introduced to organic farming as a child by his uncle, who owned and ran a farm in a Mid-Atlantic state. Parker grew up spending vacations on this farm. He had not considered farming as a career until late in college. He studied conservation biology in college and became environmentally active. Through the support of his college professors and friends, he moved to the northern New England State. At first he managed a conventional farm. After two years, he was offered land to farm. At the time of the interviews, he co-owned a farming business for three years on land owned by a land trust that supported organic agriculture. Currently, at age 32, he had one full time employer year-round, four summer full time workers and three part-time workers. He also hired part time work for the farmstand. He sold his produce at the farmstand, retail stores, restaurants, and local Farmer's Markets.

Richie referred me to Elizabeth, a woman in her mid to late thirties, who sold her certified organic produce and pickles at Farmer's Markets. She, like Parker, owned a farming business where she grew her produce on land provided to her by wealthy landowners that supported organic agriculture. She was studying resource economics for her master's degree when she realized she wanted to work more hands on and outside in a job that aligned with her values. She began five years prior to the interviews with the development of an organic pickle business based on her grandmother's recipe. Elizabeth slowly began to grow the organic food for the pickles and

eventually began selling organic produce along with her pickles. She organically certified the land and then a half of year later lost the land to a development contract. At the time of the interviews she was negotiating a land sale.

### *Commercial Fisherman*

The Groundfishermen (dragger or gill-netters) who participated in this study belonged to the New England Fishing Cooperative (the co-op). The co-op was founded in 1978 when approximately a dozen Groundfishermen banded together to gain more control of getting their product to the market. In 2000, the NEFC served 38 active members who owned small and mid-sized vessels. The co-op is based in a small city and includes the surrounding small towns. Approximately 80% of the fishermen, about 50-60 individuals, in this coastal community sell their fish through the NEFC. Not all fishermen who sell their fish through the co-op are members. Members have to pay a yearly fee of \$2600. Each member receives a dividend at the end of the year, based upon the sales.

The co-op provided many services for the fishermen, the main one being that they sell and transport the fish on land. Prior to the co-op the fishermen not only went out for 12 plus hours fishing, but when they returned, needed to drive to a fishing auction in a nearby town and sell their fish. The co-op bought trucks, ice, fork lifts, and hired managers, truckers, ice packers and others to help with selling the product to the greater marketplace. The marketplace is comprised of wholesalers and fish markets. The wholesalers

process the fish and sell it to restaurants and supermarkets. The fishermen come to the dock, where there is a truck ready to take the fish from a fisherman's boat. The fishermen receive a slip saying how much fish they sold, and are able to follow where their sales are made. They also gain control in the selling price of the fish through the power of the co-op.

In addition to helping the selling power of their product, the co-op provides members with merchandise discounts for items such as nets for their boats. For example, they can get corporate discounts by belonging to the cooperative, of up to 10 % off the price of expensive equipment (Ex-manager of the fishing co-op, current local University extension educator and liaison, personal communication, October 4, 1999).

The fishermen who participated in this study primarily fish in the spring summer and fall for groundfish, including codfish, monkfish, and flounder. In the winter months, many of them go shrimping. The two forms of fishing gear is gillnetting or dragging. In this study there were two gill-netters, and three draggers. Of the two gill-netter participants, one was a trip boat and the other went out for day trips. A trip boat fishes for three or four days at a time, whereas the day-trip boat only fishes for one day at a time. Of the dragger participants, all three were day-trip boats.

In gillnetting, the crew steams out to a location that they record, and sets a net by sinking a cement block attached to the nets and a gigantic buoy with a flag. Between the weighted block and the floating buoy, the net spreads across the ocean floor, catching fish. They steam away from the



initial set, spreading the net back into the ocean, and end off with another weighted block and buoy. The day-trip boats return the next day and haul up the nets. The trip boats return after three or four days, depending on weather, and haul up the nets.

Dragging is a fishing technique where the fishing boat steams out to a spot, drops the gear, and drags the gear behind the boat as it moves across the ocean floor. They need to stay on muddy bottom, because the gear would rip up on rocky bottom. They tow for two hours and then haul up the nets and empty the nets onto the deck. Then they pick through the fish and crabs and keep what is monetarily valuable and of legal size. The rest, which is considered by-catch, is tossed overboard. Generally, the fishermen make two three-hour or three two-hour tows.

#### *The Five Fishermen Participants*

Miles, in his mid-fifties, was raised in a commercial fishing community. His father was a boat builder. As a child, Miles “grew up on the water.” Either he was out on weekends with his family clamming or he was driving his little skiff around the bay. He had been working in the commercial fishing industry since he was about twelve.

I met James circuitously through his captain, whom I originally tried to interview, but after a very uncomfortable interaction suggested I interview James instead. In addition, mutual friends of ours referred both of us to one another. James, who was in his mid-twenties, was the only commercial fisherman crewmember in my participant pool; the others were all captains

and boat owners. He crewed on an experienced fisherman's boat. James moved to the coastal state in his early teens, but by his late teens he had begun to commercially fish for the independence, the money, and the adventure. By the time I interviewed James, he had begun to see fishing as a lifestyle that he loved and believed that "fishing got into his own blood." He was also an aspiring writer. A year after our interviews, I observed him at the docks, and he was cleaning up the boat after a four-day trip. He told me he was still commercial fishing part time, while also attending college part time to finish his undergraduate degree.

I met Chris during my first interview with Miles. At the end of Miles' interview, Chris drove up to take a break from his own boat work and sit with Miles in the sun and talk. It was in May and the in shore commercial fishing area was closed for the month due to regulations. Therefore, both Chris and Miles had their boats hauled up to repair and prepare for the upcoming season. The minute Chris drove up, Miles began to push him into participating in my study. Eventually, after many sighs, "Oh, I am not good at this type of thing," Chris agreed. Chris had just turned forty. He grew up in the local port town and had owned a boat since he was eight years old. He began with skiffs, and then slowly built up to a larger fishing vessel. His family was not in the commercial fishing industry, but he fell in love with boats at a young age. By the time he was in his early teens, he hung around the docks talking with fishermen, and eventually was hired on to crew on one of the boats. By eighth grade he had his own lobster traps for half the year, and for the other half

worked as a crewmember for other boats. By the time he was in his late twenties he owned and captained his own boat.

Al, a man in his early to mid thirties owned a boat and managed the co-op. He agreed to participate after I contacted him. He grew up near the port town, but did not come from a fishing family. Al did not learn about the industry until later in high school, when he needed a job in high school and his friend's father, who was the co-op manager at the time, got him a summer job working on the docks. When I interviewed him, he had previously commercially fished, currently owned his own boat, managed the co-op, and was getting ready to return to commercial fishing.

I was referred to Mike through his girlfriend. He was in his late thirties when I interviewed him. His father was the co-op manager and got him a job in his early to mid teens on a fishing boat. Mike quickly learned how to fish and eventually owned his own boat. He had had different aspirations of being an outdoor recreation manager, but he believed that over time commercial fishing "got into his blood," and he cannot imagine doing anything else.

### *Sources of Data*

I triangulated data collection methods by using three methods of data collection including formal interviews, observations, and informal interviews. In addition, I referred to literature to provide an additional perspective.

Formal interviews were scheduled, audio recorded, preliminarily transcribed and later transcribed verbatim. A bulk of my data in the study will

be based on Seidman's (1998) model of phenomenological interviewing because it emphasizes the importance of participant's perspective. Seidman suggests conducting a series of three semi-structured interviews, which I will describe in-depth next. Although I followed his prescribed method, freedom existed for me to ask the participants to elaborate on topics that interested me, concepts and ideas that may emerge throughout the course of the interviews. In addition, there was flexibility given to the number of interviews. In my initial proposal, I suggested the interviews might be consolidated into two rather than three, or expand into four. With nine of the ten participants, I conducted three interviews. In one case, I only conducted two interviews.

The first interview was a focused life history interview. I asked the participant to discuss significant life experiences that led him or her to arrive at their career at the time of the interviews. I first asked the participant to tell me how they would define themselves professionally. After they defined themselves, I went into asking the participant to describe how they got to where they are: "The purpose of this first interview is to have you talk about what significant experiences led you to become either a fisherman or organic farmer. The farther back in memory you can go the better. This does not have to be a chronological account, and stories that emerge along the way are encouraged. You may bounce around from memory to memory as they emerge."

The interviews were deliberately open-ended, with the focus on how the participants personally and professionally pursued their career direction. I

forewarned the participants of this, so they knew that I was not unprepared. Still this was initially difficult for some of the participants; particularly the fishermen who are used to survey type questionnaires. This type of interviewing asked them to think and reflect, which took some time.

Before conducting the second interview, I selectively transcribed the first interview, noting points of interest I wanted the participant to expand on in order to begin to understand whether they had a sense of place and how it was developed and sustained. Typically in a grounded theory study, the researcher conducts the analysis (coding and developing categories) during the data collection process in an ongoing process (Creswell, 1998; Strauss and Corbin, 1998). I needed to do this, in order to know how to direct my subsequent interviews. During the preliminary transcription I placed three asterisks and bracketed my questions as I went through transcribing (see Appendix A for an example of developing questions as I preliminarily transcribed Chris' interviews).

The second interview Seidman named "the details of experience interview." At this time, the participant was asked to concentrate on concrete details of his or her personal and professional life. Through describing the details of a typical day in his or her life, I hoped to obtain an idea of the participant's sense of place and their behavior toward the environment and the community.

After the second interview, I preliminarily transcribed the data. Questions were derived by intertwining my knowledge of ecological

processes with the collected data of their professional behaviors, which helped me develop questions pertinent to ethical behavior in their specific field. This prepared me for the third interview, described after this brief example of how I developed questions for subsequent interviews.

Depend on the specific day and specific tasks that are needed, and within the day we take breaks and talk and explore things in the field. [\*\*\*What do you explore? What do you look for and why? Give examples...] Use those times as educational as breaks, it takes five ten minutes to answer the questions, it is a nice break because doing what we do is tedious. [\*\*\*...What might you teach? What are some examples? Why do you take time to teach your crew? Is education important to you? Why?]. (Stephen #2, farmers)

In the third and last interview I asked the participant to reflect on of the meaning of their experience. This interview addressed the “intellectual and emotional connections between the participants’ work and life” (Seidman, 1998, p.12). During this interview and through the analysis, I began to identify links and relationships between sense of place and environmentally responsible behavior (see Appendix B for an example of the types of questions that were asked in the third interview).

There was flexibility in the types of questions asked between the participants, because they were unique to the participant, as well as unique to where I was in relation to how many interviews had been conducted. I worked hard to adapt to the specific situation in order to make the participant feel comfortable and heard. The more I referred to things they had said, the more they felt that I paid attention and that they were being listened to and valued. Listening helped establish a positive rapport with the participants (Seidman, 1998; Maxwell, 1996 ).

Over time, as with the example I provided with the example of types of questions I asked, I began to ask direct questions at the end of the third interview. The forthcoming questions included : what they thought of when they heard the words “sense of place?” What their spiritual connection to the place, or what their philosophy was about their profession? These direct questions were a result of having conducted several series of three interviews on participants and realizing that at the end of the third interview, I could ask these questions, without skewing the rest of the interview data. I did this because I thought that these direct answers would be helpful. They contributed to the verification of the data, but the categories and themes that emerged organically from the data were far more informative, due to the organic and holistic perspective that they contributed.

In addition to interviews, observations were used to gather more information about how the participant developed and sustained a sense of place and what their behaviors were towards the place. “Observation often enables you to draw inferences about someone’s meaning and perspective that you couldn’t obtain by relying exclusively on interview data. This is particularly true for getting tacit understanding and theory-in-use, as well as aspects of the participants’ perspective that they are reluctant to state directly in interviews” (Maxwell, 1996, p.76). I conducted informal non-obtrusive observations that provided support for what the participants had said in their interviews.

I conducted my observations as both a complete observer and a participant observer. As a complete observer I was more of an outsider, observing what was occurring. A participant observer becomes involved with the participant and their work. Creswell (1998) explains how he prefers to begin as an outside observer and develop into a participant observer. In my proposal I suggested there would be some flexibility in my design. I concluded that if it appeared to be more appropriate to be a participant observer, I would adapt my observation technique to the situation, and visa versa. With four of the participants, I evolved into a participant observer, working and helping the farmer or fisherman. I was an observer with the other six participants.

The observations included going to the fishing cooperative docks and informally observing James as he cleaned his captain's boat after coming back from a four day fishing trip. I observed Craig as he fixed his boat up on a day he could not go out fishing due to inclement weather. In fact, the weather seemed beautiful inshore, but the winds were high at sea. I observed Elizabeth as she helped deliver Richie's dog's puppies when he had to go and teach a seminar on the nearby university campus about sustainable agriculture. While I went down to the harbor where Chris kept his boat, I was able to observe him leaving for a day of fishing. I also could observe him as I was on Miles' boat, because they radioed back and forth sharing stories and information.



I was a participant observer with several of the participants. I always offered to help while interviewing or to be called to help if they needed it. I attended Farmer's Market all summer long, helping Parker at his farmstand. Across from us at market was Richie's stand. I observed their conflicts and the way they supported one another and communicated. Because I spent the whole summer doing this, it did not appear as an observation, but that I was part of the community. I joined Stephen's CSA one summer and had the working membership plan, where I would spend some time every other week picking and weeding along with the crewmembers. I ate lunch with the crewmembers and heard how they referred to Stephen and organic farming. I also observed Stephen and how he interacted with his land, customers, and crewmembers. I observed Ella during an interview as we laid hay down on a field for mulch. I learned how to mulch and she was grateful I could help her. I observed Miles on his fishing boat for a day, where I offered to help while I was on the boat. I learned how to get cod out of gillnets, and how to help set the nets. After a while, again, it did not seem as though I were observing so much as part of the boat community for the day.

As I outlined in my research proposal, these observations varied in length, ranging from one-hour observations at a market to full day observations in the field. The length was dependent on both the task that the participant was conducting and the rapport that I had developed with the participant. These aspects determined accessibility.

The interactions between the participants and myself differed. Some of the participants were complete strangers, while in other instances the participants were acquaintances. I maintained a professional and trusting rapport with all of the participants. Glesne (1989) warns against developing friendships with participants. I followed her advice during the data collection, to reduce possible bias effects in the data collection (see managing bias section).

Notes from observations were taken in a field book and reviewed regularly. In the field book I constructed an observation protocol (Creswell, 1998). My protocol included recording what the participant was doing, how the person interacted with his or her environment, and the interactions between the participant and their community members. After the field visit, I reported in my journal any unanswered questions that arose during the visit and any observations that I noticed that had not already been recorded during the visit.

After each observation and interview, I reflected in my reflexive journal. The reflexive journal was a place for me to be explicit about my role as a researcher, my interactions with the participants, my thoughts and feelings about what was happening, some initial interpretations, and my subjectivity that arose during the interaction. I applied Peshkin's (1988) model for systematically identifying my subjectivity throughout the course of my research (see managing bias section).

For example, during my day long trip on Miles' fishing boat, I interviewed him on the way out and on the way back in, but during the time at sea, there was a lot to observe. I could not record detailed accounts of what was happening because a) I was seasick, b) there was no time, because I was helping with the harvest of fish, and c) it seemed awkward to be in the corner maniacally recording notes. I wanted to fit in more, so I just jotted down words to remind me of what had happened, and then I recorded it in greater depth afterward. Immediately after the day fishing, I sat down and typed up a multiple page paper of my day on the boat (see Appendix C for an example of my reflective and reflexive journal).

The reflections that arose out of the observation led to new questions for the next interview. I was careful to acknowledge that half of my reflections were assumptions that needed to be questioned for verification, to reduce my own personal bias in the data. The observations were critical, because they allowed me to collect data and triangulate the various data, to confirm what the other participants had discussed in their interviews. In addition, the observations helped illuminate points that the participants could not articulate (Maxwell, 1996).

The example observation shows the confirmation of interview data included verifying what other participants had said about themselves and further confirming points that were mentioned by several participants regarding the profession and community. For example, Miles confirmed Chris's memories of the beginning of his commercial fishing career. Chris

mentioned that he spent his childhood hanging around fishermen and doing whatever fishermen did, so he could learn more about it. Miles confirmed this by stating how Chris as a kid would come riding around on his skiff.

Observing Miles train his newcomer during this observation confirmed how the community is comprised of old-timers and newcomers, who train one another and develop the professional skills. Another aspect of community I observed was the community that exists over the radio as they steam out to sea in the morning. They chatted about other fishermen, places to fish, about who got hung up on a rock or shipwreck, and other information. Community was a component that was discussed frequently during the interviews, observing how the community interacts helped confirm that data.

Spirituality was one concept that many of the participants alluded to, but could not describe easily. In my observation of his behaviors, Miles demonstrated a degree of faith in the fishing process, which appeared somewhat spiritual; an acceptance that after a degree of effort, he is not in control and nature is. Also, when he spoke of going out into the abyss, believing in sounding stones, and “thinking like a cod,” all these types of behaviors allude to a more spiritual orientation toward the ocean and place. The observations and reflection were important in augmenting the information gathered from the interviews.

In addition to interviews and observations, I collected artifacts about the fishermen and organic farmers to triangulate data. I primarily relied on literature from the Internet, books, and journals regarding regulations, social

impact statements, certification requirements, and other literature about fishing and farming. The fishing non-fiction and natural history books included *Cod: The Fish that Changed the History of the World* (Kurlansky, 1997), *Hungry Ocean* (Greenlaw, 1999), and *Perfect Storm* (Junger, 1997). The farming books were also part of my sense of place literature, *Unsettling of America*, (Berry, 1977), and *Reading the Forested Landscape*, (Wessels, 1997). Because I felt personally further removed from the fishing culture, which I will discuss in the managing bias section, I read more about fishing to further familiarize myself and increase my comfort level with the participants.

I also attended organic farming workshops and conferences, such as the Maine Organic Farm and Garden Association (MOFGA) Common Ground Fair. I attended conferences for fishermen, such as attending a workshop at Yale on spirituality and science, where fishermen met and problem solved some of the regulation issues, with a spiritual and scientific approach. During these types of meetings, I was able to observe what is important to the different participants, allowing me to triangulate with the interview data, confirming what the participants spoke of.

### Analysis

Analysis is the interplay between researchers and data. It is both a science and art. It is a science in the sense of maintaining a certain degree of rigor and by grounding analysis in data. Creativity manifests itself in the ability of researchers to aptly name categories, ask stimulating questions, make comparisons, and extract an innovative, integrated, realistic scheme from masses of unorganized raw data. (Strauss and Corbin, 1998, p.13)

The analysis was an ongoing process. As already described, directly after the interviews and observations, I preliminarily transcribed the data and typed up the fieldnote observations. During the transcribing and typing, questions arose that probed deeper into the meaning of what the participants said and did. Some of these questions began to fit into categories, subcategories and themes may begin to emerge, such as social context of their practice, or spiritual connection to the place. As I transcribed, I took notes in an organized manner in an analysis journal to keep observed themes and points of interest.

During the data collection and the preliminary transcriptions, I conducted a microanalysis on selected sections of the data. During the microanalysis, I selected a small section of the participants responses and conduct a line by line analysis, asking questions (who, what, when, how) to allow for alternative explanations, classifications, properties and dimensions to arise. Simultaneously, I recorded notes, questions and reflections in the document of the preliminary transcriptions. The reason for doing this is to make sure I was not assuming what the participant means by using certain words. I tried to ask many informative questions while reading the data with regards to all the possibilities of what specific words mean. This generated more focused questions and I was better equipped to conduct effective subsequent interviews, observations and data collection (Strauss and Corbin, 1998).

For example in Stephen's narrative above where I demonstrated questions that arose after the first interview, I wanted to know what he meant by "exploring."

Depend on the specific day and specific tasks that are needed, and within the day we take breaks and talk and explore things in the field. [\*\*\*What do you explore? What do you look for and why? Give examples...]

I could have predicted that he meant that he was looking to get to know the land more, he was looking for weeds and things that needed to be taken care of later in the day. He mentioned he used these as educational experiences, so what exactly did he choose to pick out to teach the crewmembers about and why? Why was teaching important to him? I could predict that he was altruistic, but I wanted to hear how he constructed his own meaning, a fundamental part of phenomenological interviewing.

I think the farm is a good resource for educational opportunities. I think it makes the farm more visible in the community, not specifically the [this little town's] community, but the larger community. I think that educating people about agriculture, but more specifically organic agriculture is something that I need to do. It feels like it's a responsibility that one takes on when one becomes an organic farmer. I don't know if other people feel that way, I don't know if other people feel that way, but it just seems like that to me. I don't know if other people feel that way. It's something that I should be doing.

I mean another sort of fairly obvious component could be interns or apprenticeship... The ones that want the education, that's still available to them, not as formal. (Stephen, #3)

After the data was collected, I transcribed the interviews verbatim.

After this was completed, I open-coded the data, by reading the data and identifying emerging concepts, themes and phenomena. These concepts arose from both the data, and my own personal experience and knowledge. For

example, I encountered recurrent statements that pointed toward a fisherman's sense of place revolving around the idea that "Fishing gets in your blood," or "Knowing when the fish migrate and when they spawn." This type of information, combined with my own knowledge and experience, would result in a category of spirituality or ecological knowledge, respectively. When the participant would then extend knowing where the fish migrate into how this affects their fishing habits, I coded the sentence into an additional category of identifying one's interdependence with the natural world.

The process of open-coding was conducted through the use of Nud-ist Qualitative Research software, developed by Qualitative Solutions and Research. "Nud-ist is designed to assist in shaping understanding of the data, helping researchers to create categories out of data, and link and explore them to form and test theories "grounded in data" (Nud-ist, 1997). I used the program to help me manage my coded data, and allow the categories to develop up from the data, where I created categories as I read the data. The categories developed as I identified a text unit (a paragraph that existed within the greater document) and had a hunch of what the paragraph meant, from my interviews and observations. The following paragraph is a text unit.

Couldn't really find anything we liked or could afford, and at some point I approached my grandfather who owned the farm here, to see if he would be willing to sell a few acres so we could build a house. Not with the intention of farming any scale but just more so we could grow our own food and provide for ourselves as much as possible. He didn't want to split the farm up any further, so he basically said that if I wanted the farm that I might as well have the whole thing, so that's how I ended up here. (Stephen, #1)



I read through this text unit several times. The categories I saw emerge were a family relationship and a desire to grow food and live simply. As I continued to code, I saw that his family was part of a greater community of people. He learned to farm from his grandfather and from nearby farms who hired him as a child. In addition, his initial desire to grow food simply, seemed to be a value he held as important. Therefore, I indexed that category into a broader category of community. Eventually, after observing other farmer's codes and comparing and contrasting, themes emerged. In this case, community was coded into a theme of sense of place. The desire to grow food fell into a theme of initial preferences.

The program allowed me to create index trees, where small categories fit into larger categories, and eventually resulting in a complex organized tree of structured data. The emergent themes were then identified with the phenomenon of how sense of place is developed and sustained and how it links to environmentally responsible behavior (see Appendix D for the complete index tree for one of the organic farmer participants, Stephen).

I coded the data two times. The first time I coded the data for each participant individually. Each individual's categories emerged, as in the example of Stephen's text unit above. After all the participants of each population were completed, the next step was to condense the categories and broader categories into more powerful themes. I did this by making large chart papers, where I wrote down the individuals and their categories and brief definitions. Along with my advisor, we compared and contrasted, and

identified similarities and differences. Smaller categories, which fit into broader themes, emerged. The themes are sense of place, initial preferences, ways of life, and evolving values. I then conducted a second round of coding, where I coded the data into the similar categories and these four broader themes.

I first coded and re-coded the organic farm data. I followed this with the analysis of the commercial fishermen. I took care to follow the same process with the fishermen and let go of the broad themes that emerged for the farmers. How I prevented the farmer's analysis from impacting the fishermen's analysis was to return to coding each individual fisherman's transcript, allowing their personal categories to emerge. New subcategories for the fishermen emerged. After comparing and contrasting the fishermen's data, the same broad themes as with the organic farmers emerged.

Several times during the coding process and emergent theme process, I worked with my advisor, and a participant, to make sure I did not code according to my expectations. In addition, I had two people read several pages of a transcription code the data. I looked for similarities and differences in our coding.

There were mostly similarities between how the readers and I coded the data. Each text unit, or paragraph, can be coded into several categories. Most of the time, if I chose three categories to code the text unit, the readers chose at least two of the three. However, there were differences which were due to a need for further clarity of terms in the "coding key" I provided the

readers with. For example, CSA could have reference to economic sales or public involvement through education. Given the lack of clarity, I could understand why both readers chose to code a certain text unit differently than I. Another example was I did not define what I meant by home clear enough, that the home meant the exact house they lived in, not the land. Land had its own category. Another definition problem existed in the first category, commitment to greater good. I had misnamed this and forgotten to change their key to the correct title: initial preferences. I did not clearly define these categories, which resulted in differences in our coding. However, I was pleased to see that a majority of the coded data reported coding similarities.

At the end of the analysis I used member checks to assess the accuracy of my findings and interpretations. A participant from each community was selected to conduct a member check, based on the level of their accessibility and willingness to reread the findings and provide feedback. This was a helpful process, in that they agreed with my findings, but contributed more depth to the understanding by providing stories that depicted the process.

### *Credibility and Trustworthiness*

In this section, I will review how I conducted the study, with relation to credibility, with the goal to gain the trust of my audience that the findings of my inquiry are worth paying attention to (Lincoln and Guba, 1985). Creswell (1998) split trustworthiness and creditability into two parts: verification and standards. Verification is a process that “occurs throughout the data collection, analysis, and report writing of the study” and standards are

“criteria imposed by the researcher and others after a study is completed” (p.194). The standards of trustworthiness that I intended to obtain require minimizing researcher bias to the best of my ability as a qualitative researcher, and increasing accuracy of data collection and interpretation. To address the issue of trustworthiness, I verified the data by triangulating, using various methods of data collection including formal interviews, observations and informal interviews. I addressed the researcher bias through the utilization of reflective journals, member checks, colleague checks, triangulating data collection, comparing results to literature, and employing a data analysis journal.

During qualitative research, there is a constant interplay between the researcher and the data; the researcher is the instrument. As a result, the researcher’s previous knowledge, experience and assumptions will have an impact in the data collection, data analysis, and conclusions. As this interaction is inherent in qualitative research, it cannot be stopped, but rather needs to be recognized. Qualitative researchers believe that if a statement reflects a person’s view, it does not automatically make it an unwarranted or biased view (Schwandt, 1997).

I conducted member checks to identify differences or similarities between the participants’ and my own perspectives and interpretations. These occurred after the data had been coded, categorized, and conclusions have begun to be drawn. A participant from each community was selected to read over a rough draft of my findings. They met with me afterward and shared

with me their thoughts on the conclusions drawn. If the interpretations differ, I would have presented both perspectives, to allow the reader to decide what they believe to be true. However, I was fortunate that the participant member checks agreed with my results and further supported the conclusions. Allowing the participants to be part of the validating process further informed myself as the researcher, as well as the readers.

The reflexive journal was used to record both my relationship to the data as I record and transcribe and my relationship with the participants. This was on a way that I monitored my relationship with data and participants was using Peshkin's (1988) model for identifying my subjectivity during the research process.

Peshkin (1988) claims that "Researchers should systematically seek out their subjectivity, not retrospectively when the data have been collected and the analysis is complete, but while the research is actively in progress" (p.17). The researcher should work hard to be actively aware of how her subjectivity may be shaping the inquiry and outcomes throughout the research process.

He states the persuasions of a researcher could evoke feelings in certain situations, with certain subjects. In his method, every time his feelings were aroused, he would record them. After a while, themes and categories emerged, which he referred to as his "subjective I's." This method enables the researcher to manage his subjectivity and avoid the biases that subjectivity can lead to.

Throughout the interviews, I remained aware of and monitored positive and negative feelings that emerged prior, during, and post interactions with participants. When feelings surfaced, I recorded the feelings in my reflexive journal. I primarily used Peshkin's advice to pay attention to the warm and cool spots. For me this translated into how it felt in my stomach, anxious or comfortable. Anxiousness and comfort had a certain interplay with each participant, where one aspect would make me comfortable and another would make me uncomfortable. This indicated that I needed to pay careful attention to my biases in every interaction.

A few of the "I's" that emerged included:

- Organic food- I (comfortable with farmers)
- Adventurous- I (comfortable with fishermen)
- Social-I (comfortable with each population once we began to talk)
- Environmental-I (comfortable with the mission of farmers and uncomfortable with fishermen with regards to fish populations and regulations)
- College graduate-I (uncomfortable with all the participants who had not attended college, out of fear they would think of me as an outsider "white ivory tower" person)
- Younger person-I (When interacting with the older farmer and fishermen, I felt as though I was sitting with some more wise and knowledgeable than myself and I had a certain respect and regard, leading to a discomfort and comfort)
- Female in male dominated culture-I (uncomfortable with the fishermen)

- **Mutual friend-I (comfortable we knew or liked similar people)**
- **Grew up in a Port town and had boatyard friends-I (comfortable with the fishermen and felt that I could relate to them as I did my buddies from school, however these buddies were the same ones that condemned me for going to college, which led to discomfort)**

Overall, initially I could conclude that I felt very comfortable with the organic farmers, in that I had spent time on organic farms, I had attended the MOFGA fair previously, friends and students of mine have worked on organic farms, and I prefer to buy organically grown food. All of these aspects contributed to the ease with which I could enter the farming community. On the contrary, I did not feel any personal connection initially with the fishermen community. In fact as an environmentalist female, I felt intimidated. However, while I was with the fishermen, I began to notice that there was a familiarity that felt comfortable. This was when I acknowledged a subjective I where I felt like I knew the participant and their ways because of growing up in a port town. This led me to make inferences as well. One such inference, that was proven wrong, was that all fishermen like to drink a lot and live wildly. Four of the five participants, the boat owners, did not drink a lot anymore. They enjoyed the ocean and the adventure of their job. They explained to me that boat owners are businessmen, and this is their way of making a living. I found that differs for the crewmembers, who were younger, and were more likely to party and be transient. Many of the fishermen, who

were older and did not own their boat but were still crewmembers, still drank heavily.

I noticed that the more comfortable I felt, the more I had to watch my biases because my inferences increased. I used the subjective "I's" to keep myself in check and identify where I may be making inferences because I think I "know" the people. I had to make sure I followed up with questions that addressed my inferences that arose out of this comfortable or uncomfortable subjective "I." In the example of my inference that people on boats have wild lifestyles, I made sure to ask the participants what they do for fun and whom they hang around with. Inquiring about my inferences allowed me to learn a whole perspective, rather than a pre-judgement.

Another way subjectivity can impact research is through the type of relationships that develop between the researcher and participants. Glesne (1989) warned against developing friendships. She distinguished between rapport and friendship in the context of research. Rapport is a relationship that is defined by trust, but not necessarily liking. Friendship is based on admiration and trust. Because the researcher develops the intention and purpose of the relationship, there is an asymmetrical nature of the researcher/participant relationship, which creates a 'power relationship.'

Although friendship could help contribute a stronger, more potent voice to the research than rapport, it has many problems that can be associated with it. Some of the problems include the possibility of a bias in the selection process and a bias in the data itself. This can affect access to beneficial data



sources and create distrust. The researcher should focus on developing trust, while maintaining a certain degree of distance to avoid hurting the participant.

As stated earlier, my relationship with each participant differed from being a stranger to being an acquaintance. Since the acquaintance relationship can already be considered partially a friendship, I accounted for it through thorough record keeping. I appropriately managed any possible biases by paying attention to all the possible impacts it could have on the data, particularly subjective persuasions, in an effort to keep the work unbiased. I recorded in the reflexive journal what my relationship is with the participant and how I relate to this person. I questioned my assumptions as I read their data because I may be more inclined to assume what they mean automatically because I think I know them. I also questioned my assumptions similar to the line by line microanalysis I spoke of in the data analysis section to allow for alternative definitions, explanations, properties and dimensions of their words to emerge.

### **Limitations of Research**

Limitations to this research include several factors. The first one involves the use of autobiographical memory. Chawla (1998) warns against too much dependency on autobiographical memory as the accuracy can be skewed over time. The interviews depend on the participant remembering significant experiences in his or her life, as well as recalling how they live their lives presently. There is also often a gap between how one would like to live their life and how they actually do. I hope I addressed this problem by

triangulating the data during the analysis. Observation provided information regarding what is really happening versus the interview, where the person states what s/he thinks, remembers, or perceives to be true. However, in both interviews and observations, participants may act differently around the researcher, creating a skewed view of what is happening.

The second limitation is the researcher as instrument. The researcher will conduct the observations, interviews and other forms of data collection. This results in the researcher being the instrument. There was an impact of my personal experience, knowledge, and style on the data. This limitation was addressed through the use of a reflexive journal, where the relationship between the researcher and data are monitored and documented. However, the reflexive journal is kept by the researcher, continuing the possibility of researcher effects (refer to the managing bias section).

The third limitation is external validity, the extent to which research results can be generalizable to populations and/or conditions (Wiersma, 1995). The limitation is due to the small sample size, where I only interviewed five fishermen and five farmers. The participants may not accurately represent all fishermen or farmers. However, the research was more conceptually driven than contextually driven, meaning the intent of the research was not to explore fishermen and farmers to generalize findings to this population, but rather identify whether there is a relationship between sense of place and environmentally responsible behavior.

It should also be noted that in qualitative research the threats to external validity are considered part of the uniqueness of the study. I, the researcher, affect the selection, the setting, and the history. Therefore, I addressed issues of external validity through concerning myself with transferability. I addressed my own biases through journalizing and reflecting. I addressed my selection process through journalizing and note-taking as well. I tried to provide enough description of the appropriate data and methodology so that this transferability is possible. Transferability is where another researcher can apply a similar research study on a different population at a different time (Lincoln & Guba, 1985).

#### **Ethical Issues**

The main responsibility I have during this research is to protect the confidentiality of those who participate in the study. The anonymity of all informants was preserved at all times throughout the research. Pseudonyms were used for informants and the community. The real names were recorded only once to create a list that provides a key to the pseudonyms. Afterwards only pseudonyms were used in the research documents. This list of names is kept by myself and will not be reported at any time. This key will be discarded after termination of the research.

The informants who consented to participate were kept informed of the research design and process; they had the opportunity to have the aims of the interview explained to them. They had the option of saying things “off the record” that did not find their way into the final account.

Persons in the immediate setting may be able to identify specific events or individuals contained in the final account. However, no material is included in the study that, in the judgement of the participants or myself threatens to compromise the psychological, physical, social, or economic well being of the individuals in the setting. A tension may exist by the nature of the different communities exhibiting different environmental behaviors and ethics, whereby the participants who are “not as environmentally active” will fear being perceived as negative. To alleviate this tension, I ensured that the participants may review the findings and provide feedback, so as to include their positions. I also made frequent checks of my perceptions against those held by participants in the setting. Given these checks and precautions, risks associated with participation in this study should be minimal.

Respect was upheld through the acknowledgement of their time constraints and personal and professional needs. Before collecting data from individuals, informed consent for participants will be formally obtained via the attached consent document (see Appendix E for Institute Review Board approval form and see Appendix F for consent document).

## CHAPTER THREE

### DATA ANALYSIS

#### Vignettes

##### *Introduction*

The purpose of this study was to strengthen the conceptual and empirical foundations of sense of place and its links to environmentally responsible behavior. I did this by examining how sense of place is developed and sustained, and to determine whether having a sense of place is linked to environmentally responsible behavior. To provide the reader with a more in-depth view of the participants, I present two vignettes, one of a farmer and one of a fisherman. I selected Ella for the organic farmer, a woman in her mid-thirties who discovered farming as a career during her college years. The fisherman I chose for the vignette was Miles, a man in his fifties who was raised in a fishing community. I did not select these two because they are “typical” farmers and fishermen. Although there are similar sentiments and experiences among the farmers and fishermen, there are no “typical” farmers or fishermen to portray. Instead I chose these two simply to introduce the reader to two of the ten people I met, interviewed, and observed, and to provide a more complete representation of the context in which the interviews were conducted. I inserted direct quotes into the vignettes to let the participants’ own words relate their stories of how they became farmers or fishermen, their perspectives on their connections to place, their knowledge of the specific places in

which they live and work, and their relationships with human and non-human communities.

*Ella, an Organic Farmer*

Ella and I set April 4, 2000, to meet for our first interview. She gave me directions to the farm where she worked, and I drove through the slightly rolling hills of the Northern New England seacoast community, past many new housing developments. Later she and the owner of the farm informed me that all the land in the surrounding community used to be agricultural land. In fact, they reported, this region had been the most productive region in the state prior to the 1980's.

This conversion of beautiful, pastoral land to suburbia depressed me, not only because of the aesthetic loss, but because it represented how little the United States values small family farms. By the year 2000, the time of our interviews, many small farms had sold their land to housing developments because it was more cost-effective than competing for the market with the large, government-subsidized agribusinesses of the west.

After passing many houses, I came around a corner and saw a farm sign hanging loosely on a hinge. The words welcomed customers to come to the farm stand and informed the passerby that the "pick your own strawberries" season would be beginning shortly. I left suburbia behind as I headed up the dirt driveway, past the old white farmhouse on the left. Connecting with the farmhouse was an old, low roofed wooden corridor, with a painted wooden sign that read "CSA." Further to the right was a large red barn, filled with hay and farm equipment.

Facing the side of the barn, I parked in the long, lush, spring green grass, alongside Ella's old pick-up truck. Her truck is noticeable when it moves down a road, its big, wooden homemade cab floating on top of the small frame. The side of the truck was covered with big, white painted letters: "Free Leonard Peltier." (Peltier is a Native American whom Ella and other activists consider to have been wrongly accused and arrested by the federal government). When I looked inside the cab, the dashboard was covered with environmental, social justice, and organic farming bumper stickers.

My feet padded their way softly across the green grass towards the plastic-covered greenhouse, where she had told me I could find her. The gray textured clouds rolled in on their typical westerly wind. It had rained most of spring, and was predicted to continue raining on the day I arrived for the interview. Spring 2000 was the year that farmers complained of too much rain, whereas the previous year there had been a devastating drought. I learned that many farmers dread too much rain more than drought, because it can bring on mold, blight, and other diseases that kill the plants. Additionally, because it rained every day during the spring, the soil was saturated with water, and no one could get on the fields early enough to plow, resulting in a late crop. Given the short growing season in Northern New England, this could have a negative economic affect on the farming businesses.

Anxiously, I passed a rooster that was aggressively trying to nip my feet. I stepped over Ella's dog, a large reddish longhaired dog, who was lazily lying in front of the door. Inside, I walked past a black metal wooden stove furnace, and found Ella sitting at a long table, her white blond hair falling down her back and along the sides of her face. She was leaning over trays of soil, tapping a small green circular disc. As I

got a little closer, I saw that the disc was filled with little seeds. As I have known Ella in our social circles for about 15 years, we hugged and greeted each other with our life updates. She told me to grab a bucket and sit across from her so we could sit and talk as she seeded the trays.

You can grab that seat if you want. You want to sit? You can have the rooster sounds and everything. [We laughed as the rooster crowed outside the plastic walls of the greenhouse, providing a real “farm” like atmosphere]. The full effect. Will you pass me the bucket or the seat?

After I sat down, I described my research and the interview process with her. I gave her a miniature microphone to clip to her flannel shirt, and then she read the confidentiality form to sign. The fact that I was interviewing commercial fishermen inspired her to look up from her sheet, and she squinted a bit and her speech speeded up as she shared with me her feelings about the fishing industry.

So you are doing fishermen too? I just finished reading this book and it has got me off on fish. I am so not into fishing because how it’s just total resource extraction, it’s always extraction, you never fertilize, you never plant seeds. Even fish farming, they do so much genetic engineering and feeding it complete antibiotics and bullshit that I am not into it at all. I am horrified, this book is totally horrifying. It is all about the seas, and how depleted they have gotten, and how overfished they are and how polluted they are, and how we are just completely fucking our oceans. So, awful, I was like “Oh great, no more fish.”

...I am sure there are fishermen out there that are very conscious and aware of what's going on, but there is not very many fish populations left that are very abundant and not heavily taxed.

This initial monologue about the “state of the world,” was typical of the way in which our conversations began. Upset about some political, social, or humanitarian issue, she would speak passionately about it, and then relax enough to continue the interview. Ella grew up in New England, playing outside and helping her grandmother garden. She is a first generation farmer in her family, although both her grandmothers gardened for subsistence. Ella described how she enjoys learning, including from her grandmother. Although her parents did not farm, she believes that farming often skips a



generation. As Ella began to speak about her grandmother, her voice softened and her head tilted a bit as she tapped seeds into each individual soil block.

My grandmother was always a big gardener and had seven kids and not much disposable income. She did a lot of farming when her kids were young. A few years ago, [she handed me] bundles of old Rodale's organic farming magazines from the sixties and seventies. She was really hip, she was real aware of what was going on. I am not sure how she got into organic farming, but as soon as I did, that's pretty much all we talk about when we see each other, although she is not doing so well right now. But, I tell her every time I plant seeds I think of her, and I think she probably had a big effect on me.

Ella's interest in gardening temporarily passed during her teens. She had not considered farming until attending college and learning about environmental issues.

The thing that really clicked it in was going on Semester at Sea, where we were on a huge ship for a hundred days. I was really horrified by the waste that we saw. They [the ship] threw the garbage right overboard. Going into different harbors where you see floating filth everywhere, and being in different countries in Taiwan and Hong Kong where you literally had to hold a bandana over your face in some parts of the city because the air was so bad.

That spurred me into realizing that the planet is finite. It just showed me how small it [the world] was and how people all over the world are just all trying to do the best they can. But, we are depleting the resources at such a pace that I wanted to make sure that I wasn't contributing real heavily to the depletion. That I was trying to work on sustenance. When I put all that all together, organic farming was what came out of it, as my main focus. [Ella looked up with a squirming look on her face, and her voice became more discerning.]

Like I could do some organizing in some office, in a city, but I knew I couldn't really do that, [because] mentally it just wouldn't work for me to be in a city, to be in an office, on the phone, on the computer all the time. I really need to have my hands dirty. [She began to tap her seeds back into the tray and started to smile.] I just love planting these little seeds, and all of a sudden you got a hundred plants, it is just the coolest thing.

Ella continued to describe how she views her relationship to the earth and why working outside is so important to her. She elaborated on her desire for sense of place, her love of being outside, her love of knowing where she is, and her own emotional attachment to the natural world.

I think I can tend to be an up and down sort of person emotionally sometimes. Working with the earth and working in a way that I don't even know if I can describe it. How the earth is always there, its not gonna run away on you.

The people who formed her community helped Ella actualize her preferences to be outside and her desire to right some of the environmental wrongs. Her grandmother was among the many people who supported and encouraged Ella to pursue her dreams. In addition, a professor at her university exposed her to a different type of learning and encouraged her to transfer to a more experiential college, where she was able to study organic agriculture and become very environmentally active. She also met many farmers who served as mentors to her, teaching her about permaculture, organic farming, and the attitude that goes along with organic farming.

Before she transferred to the new school, Ella worked with organic farmers while traveling for a year through New Zealand and Australia with Willing Workers on Organic Farms (WWOOF). She shared how being immersed in the farming community was influential in her path to a career in organic farming. In addition, the farming community taught her about place and about political action as a form of public service.

The one thing that taught me the most, even more than taking any agricultural school stuff, was I ended up getting to go to Australia and New Zealand. I did the, "willing workers on organic farms program" where a girlfriend and I, traveled all around the countryside in New Zealand and then Australia working for different organic farmers.

You get room and board and a lot of experience and you just work maybe four, five, six hours a day, but we worked for amazing farmers that were doing what here would be considered highly revolutionary stuff.

First we stayed and worked for two or three weeks at an amazing permaculture farm where he had a hilltop that slopes down pretty steeply but he had all different tree varieties, different levels, and all different ecological niches.

Between that farm and then we went to the North Island of New Zealand and stayed on a biodynamic farm. The people were, and probably still are, homeopathic doctors and had a 500-acre biodynamic farm. They had recovered land that had been wasted, just probably farmed real hard, and then abandoned. It was covered with thistle and all the farmers around them said "You're crazy if you buy this piece, it is just filled with thistles." Through biodynamic methods they managed to eradicate the thistles, just using the biodynamic preps and stuff.

People over here think biodynamics is bunch of hooey and just very strange and ethereal. It is very wild, but they are very focused and they do everything with intention. I would work all day and sit in the farmhouse at night and just read as much as I could.

Over in Australia we stayed on an organic banana farm, and hacked down banana trees, topless. It was a lesbian run farm, so it was just wild!

And then the greatest one, well they were all great, but the last one we stayed on was a permaculture tree farm where he had tons of different fruit trees. It was probably a 50 or 60-year old Swedish guy who had emigrated from Sweden. He reminded me completely of my grandfather, who was Swedish, and had died a few years before, so I just loved this guy. He grew every sort of tropical fruit on that farm that you could imagine. And had seedlings, and oh incredible. He would take me out into the rainforest and make me key out all the trees, learn all the trees. He and his brother were part of Earth First! in Australia that saved the rainforests over there.

I didn't realize it of course until afterwards but I am quite sure that I learned more with those experiences than I did in "Ag" School for a year and a half. It wasn't a real hard core ag school either, we had experiences and in the different fields but mostly I made a lot of compost at the [school's] organic farm.

Although Ella completed her bachelor's degree to satisfy her parents, she was aware she learns better in an apprentice-type community than in a formal, academic setting. After she finished her degree, she returned to the New England area to be closer to her siblings and her dying grandmother. She commented in a later interview that New England feels like home to her, initially because of family, but also because of the natural beauty of the place.

I definitely feel like I have roots here. My parents, and my grandparents still being here, my brothers, and my sister, that all kind of gives me what big place feeling I have.

Also, moving out west helped me to appreciate how beautiful it was here. It was definitely an eye opener to come back and to see how much I really loved it here. The landscapes around Puget Sound look really similar to the landscape around Great Bay. It's definitely as lush, and I love the four seasons. That's sort of the blood. I just love these seasons. Just the whole cyclical thing, I really do love, I want to be here in New England. I really love the ocean.

When she first returned, she worked and made a lot of money landscaping. The job was outdoors and she made a lot of money; however, she did not feel it was

compatible with her values. Then she found local organic farms where she could work. She instantly quit her job, took a pay cut, and returned to organic farming, doing what makes her happy.

It's [organic farming] not something you do for money at all, really such a subsistence thing, but it's the joy of being outside and being with the plants and out in nature, definitely not a money thing.

The farmers in the area served as support and mentors. Particularly, she found a lot of support from Stephen, an organic farmer who also participated in this study, for whom she was working at the time of these interviews. Prior to working for Stephen, she apprenticed and formally studied organic farming. She had also co-owned a farming business with her best friend on land that Stephen owned. He leased land to young farmers who were trying to start a farming business. But after a few years of owning a business, she learned that she was working too hard and becoming sick. In addition, she and her business partner lost the land because Stephen had to sell it in a divorce settlement.

This [the land Stephen provided her to start her farm with] will actually mark the fourth garden that I have had to move or get developed or overgrown or something. Stephen had to sell it to pay off his ex wife to pay her supposed share of the farm, even though it is his family's farm. But we won't get into that. Now we have to plant up all our plants from there and move them here and there.

Another reason she decided to leave most of her business was because she had observed that Stephen had the right attitude required to sustain a lifestyle farming. Because she wanted to learn more from Stephen, she decided to work full time for him, while still maintaining a small herb business on the side.

For me it's been a great experience to be around him. Even though at this point I have done schooling, worked for three or four farms, and then a girlfriend and I had our own farm here. For two years we were growing thousands of herbs and

flowers and all sorts of stuff. But I still wanted the added experience of working with someone who had the right attitude to go with it.

This is my second year working for him but my fifth year working with him and I just keep on hoping that I am going to absorb some of his Zen energy. I feel like I am more and more because I used to really freak out about pests. “Whooo God what if this and what if that?” He’s really got such kind of a long term nature, sort of energy about it, “Well, you know, if they eat a little bit, that’s ok, if they start to eat a lot, maybe well do a little bit of this or that.” But he just doesn’t let it get him down. Also, he goes running at 8 o’clock at night in summer when everything is done. And, he dances. He’s got his outlets.

Farming is a lifestyle that is both time and energy consuming; there are many aspects to farming that one needs to learn. Ella articulated her love of learning and how she sees farming as part of this. She stated several times she did not much appreciate the dry learning of conventional school environments, but said that when she could experientially engage, problem solve, and experiment, she becomes inspired.

The best thing to me about farming is that there is always something new to learn or try or do. We are constantly in a state of experimenting. You can do exactly what someone has done before or you could do something totally new and different, and you never know what’s going to work. There are so many ways of doing it; there is no one right way. For stubborn people, and independent thinkers, farming is a great way to go, because you can always figure out new and different ways to do things [chuckles].

The organic farming way of life is to be a lifelong learner, which takes a large commitment of time and work. Therefore, finding balance and the right attitude to go along with farming is crucial to sustain the way of life. During Ella’s first interview, her reflections on her personal and professional growth demonstrated how she had understanding, appreciation, and respect for how the natural systems work and how organic farming fits into natural systems.

On April 21, 2000, I met Ella at the greenhouse for the second interview while she was seeding scallion seeds. This time I wore many layers, as the damp days were cold when simply sitting for hours. Ella was covered in a big wool flannel shirt. It

rained throughout the duration of the interview. The sound of rain in a greenhouse is exaggerated by the plastic structure. During the second interview, Ella went into greater depth about her commitment to the soil, to the local non-human community, to the land, and to the local human community in her place. She informed me how they maintain and feed the soil, and mulch the land to suppress weeds, at the farm, and also related some of her political beliefs and actions.

She discussed her daily routine, describing in detail how every season in her farming lifestyle has a different focus. During the winters she “lays low.” She works a part time job at a health food store and is politically active in environmental issues. During the spring, summer, and fall she works full time at the farm, dividing her work between her own herb business and Stephen’s farm, about 20% and 80%, respectively. This takes up a lot of her time, but she still makes time for political action and surfing.

As she told me about her work, she went into detail about soil maintenance. Her commitment to the soil began instantly when she had her first little garden during her first summer at college. She immediately felt an affinity for compost, how it is used in farming, and why it is important. From her understanding compost, an ethic emerged: to take food from the land, you must give back to the land. This was a whole circular aspect to farming that began to define her sense of protecting and caring for the land.

Had my first garden out on Nantucket in 1986 or something, just tomatoes and a compost pile and this and that. When you are young and you find something that feels revolutionary for you, “Oh this is my life, I found it.” I have always been really into compost; there is something about compost. Just making it, all the layers of dead rotting, strange things, old moldy hay, whatever you have, putting it all in there. Then a month or two later it is just ground soil. I just love that regeneration aspect of it.

She later learned more about farming and soil development from working at various farms, experimenting, learning from others, and reading. The responsibility of building soil is a main tenet of organic farming. Soil building primarily addresses fertilization. Fertilizing the soil is essentially for returning to the soil what was taken out by the produce that was harvested, as well as by natural soil degradation due to weather and time.

The farm where she worked at the time we interviewed used outside fertilizers, including a fish emulsion and other types of fertilizers to feed the plants, but the main fertilizer they used was compost. They made the compost with organic matter generated at the farm, and they added manure to it, bought from nearby farms. Other fertilizing techniques they used were cover cropping and crop rotations.

One of the main things organic farmers try to do is to feed the soil, increase the organic matter in the soil...and giving the soil better fertility, all the time. You can't keep on growing crops year after year on the same soil without feeding it. It's like farmers in the Midwest, the, dust bowl days, they were just farming it and farming it, farming it, and finally it turned to a freaking dust bowl. They weren't feeding it, they weren't putting anything back it, or stopping, giving it a year off, we try to do that with the field.

We rotate, there'll be a field that you leave in a mix: a vetch and rye mix, vetch, a legume, which fixes nitrogen. Rye, not oats, because oats winter kill. Something so that the field can rest and you know, gets its till back up. It's very complex and it's a big part of organic farming.

One of the other things you try to do is rotate your crop so that you might have a heavy feed or something, like corn or broccoli, something that really sucks the nutrients out of the soil. The next year you will try to put in something like peas or beans which feeds the soil; they've got nitrogen-fixing nodules down in their roots.

Natural fertilizer and crop rotations are also used for pest management.

You have a lot less pest problems using crop rotations because potato beetles in one field don't generally find their way to the potato field when you move it the next year all the way a half a mile away.

As Ella learned to farm, she became passionately committed to using mulch (hay) for weed suppression and water retention. She had conducted an experiment comparing one field that was mulched with a field that Stephen traditionally had planted without mulch. It was drizzling when I left the second interview, and I was ready to get going, but, Ella insisted we go out and look at her mulched garlic patch: “Oh come on, it will take a minute.” She got up from her seeding, and we walked out to the field behind the greenhouses.

The cold rain softly drenched us as we approached a tan field, which looked like a bunch of hay strewn across a field. Ella was stretching her arms out, pointing to where the field began and ended. She filled her sentences with as much information as she could about mulching, and told me how this particular garlic patch was amazing. She stepped lightly over to one spot and slowly lifted up the hay to uncover what was going on underneath the heavy mat of hay. I could see some new growth. Her enthusiasm was contagious. Apparently her experiment was such a hit that during the next season, Stephen used mulching across his fields, too, agreeing that he learned a lot from working with Ella.

Over time, Ella began to develop knowledge about the specifics of his farm. She learned how the soil provided for her and how then in return, through these fertilizing techniques, she gave back to the soil.

You learn so much about the systems about the specific soil. I learned how it works, and what the strengths of certain soils are, the weaknesses. I learn what happens when you see certain weeds, its indicative of pH, this that and the other thing. There's just so many little ways to see if your soil is in need, if you need to feed it.



Over time, this evolved into a deeper felt connection to the place and an affinity for the place. Stephen's support, her ability to take risks with new experiments and technique, provided some ownership and connection to the place. Although she longed to own her own land and have a farm to sink her roots in, she had developed a deep sense of belonging at Stephen's farm.

I am very connected to this place because of all the time I have spent here. I have been growing in this greenhouse for five and a half years and on the land across the street for three years. ...Just being out there for three years and getting to know the birds that came in, just the area, it's so beautiful. I've bonded with it, but that's only five years... Time has connected me to place, and the nature of this place, just knowing that its been farmed for generations and the feel of it around here. It's pretty holistic.

Part of her connection to the farm is her connection to the farm crew and owner, as well as with the surrounding community. Her involvement with the surrounding community came through the form of education. At the time of the interviews, she became increasingly involved with the new environmental education summer camp at the farm. She taught children from the surrounding community about farming and the importance of local agriculture. Her goal was for children to learn for themselves and go home and teach their parents.

Through educating the local people about small scale farming, Ella felt that she was also making a political change. Ella has strong convictions that bioengineering and corporate agriculture are morally corrupt.

I think it was the late 1800's or early 1900's that corporations were given the power of a person, and they shouldn't have that power, they are not a person. They don't have any desire to think about anything except profits, so I feel ethically they're very bankrupt....What we're facing is just a massive greed machine, where people are giving up their personal power and giving it to companies. Those companies are raping us, they're raping the planet and they are raping all people.

She believed that many agricultural businesses, the larger synthetic chemical companies and bioengineering seed companies are corporate-run. She has a strong belief that the members of the community should be part of the food production and connected to the type of food they eat, so that they have a say in what they eat.

Its how I feel with this sort of farming. We need to scale down and scale back, bring the power back to the people and give people power over their lives and over their livelihoods. [It is important that people] can live without being completely under the thumb of corporate rule (Interview #2).

Not only does Ella contribute a lot of her time to farming and to the farming community, but she is also environmentally active through work with grassroots organizations. Ella holds strong views and opinions about environmental issues, the culture of the United States, and mass corporations. Her commitment to environmental activism goes beyond just environmental issues, but encompasses social justice issues as well. At the time of the interview, she was very involved with the anti-genetic engineering crop movement. Ella feels that bioengineering crosses humanitarian, environmental, and corporate lines of the political arena, weaving farming with environmental issues.

We had a big conference three weeks ago; we fed a thousand people. That was my latest big project, was getting donations from a number of natural food organic or non-GE companies and feeding a thousand people at this conference. It was a big load of work but it was really rewarding in a lot of ways.

[It was rewarding because] it was the biggest anti-biotech conference in North America ever. There is huge opposition to it in Europe, but there really hasn't been much here. I think it is due to the control of the media by the big companies. The American people aren't really aware of what they are eating. I feel like if people were aware they would want to know about it, so I try to do stuff around that.

... Most Americans don't know anything about it. I would like to think that they would want to know, but I also am a little cynical. A lot of people want to be able to go on, doing what they're doing, and not worry about anybody else. I've just reached this point in my life, I did a long time ago, where I just

can't go on like that. I can't look at these things, these problems in the world and say, "up, not my problem." I can't do that, its too big.

We met at the farm for our third interview on May 14, 2000. This time I found her in the big red barn, up in the rafters throwing bales of hay down onto the floor. She asked me if I would help her stuff them into her green truck, and if I would mind going with her back to where she lives to help lay down cardboard and hay to mulch the weeds. Of course I agreed, feeling so grateful that she was even interviewing with me, given that spring is the most hectic season for farmers.

I followed her truck through the wealthy roads of North Hampton, past mansions. We got to her house, where she care-takes in the winter and lives in a one room "shack" in the backyard during summers. In exchange for work on the house and care-taking the grounds and a garden, she and her boyfriend have a place to live year-round. The shack where Ella lives with her boyfriend does not have running water or electricity, but they have made a nice home off the grid.

We just worked out a trade where in the summer I mow the lawn and trim the shrubs or do whatever, and bring them flowers from my garden, and vegetables. They let me live there [in the big house] in the winter [when] they go away for literally eight months. The last three years I lived there. ...I have been trying to expand our gardens there for a while; the soil is very sandy and very poor. I've just been making a lot of compost and trying to get the beds better and grow them a bunch of stuff. They love it.

We laid cardboard down on the weeds by the marsh across the street from the landowners' house and continued interviewing. Ella spoke in depth about her connection to the place, her process, her interpretations of how she lived her life, and her meaning for the process. She provided me with an understanding of how she felt she came to know the place she is currently at and how she would like to develop strong roots in a place she owns.

Ella believes that it takes generations to settle in a place, and that Americans inherently feel compelled to search for a better place. When she described “home,” she shared more about what makes her comfortable in a place. This primarily included family, friends, the geography, time spent in the place, and the ecological aspects of that place. Time in a place allowed her to not only feel connected, but to know the place more intensely, both ecologically and geologically, offering an opportunity to effectively farm on the land. Although Ella feels connected to Stephen’s farm, it was clear that she would really like to set her roots down and start a farm where she knows she can be for a while. It may not necessarily mean *OWNING* the land, but she would like to be guaranteed that she could remain on the land indefinitely.

It is interesting that this is all about place because it is something that I have been yearning for since I have been farming. As sort of a place of my own or just somewhere I know I can be for a long time. ...I really yearn to feel like I can sink some plants in and sink my roots in and plant trees which is really my main fantasy in farming is to have a nursery, have lots of trees, just get even deeper into it. I feel like the more you know the land around you and the watershed, and the whole geology of it, the better off you are, the more in tune you are, the more you’re capable of understanding over time.

Ella then shared about how she came to live conscientiously, and how she continuously develops ethically.

I think there was a long time when I was younger that I wasn't really conscious. But I feel like, once I got a conscience about what was right and wrong...well my parents were trying to teach me all the way through and they did a pretty good job. Once I felt conscious of sort of the plight of the world and the plight of humanity, I didn't feel like I could just be a passivist consumer.

I feel like it’s part of being human to struggle to be a better person and be a good person... I feel like doing good work is something I have to do...I am always striving to find the best way. I strive for to figure out how I can live better, live simpler, and be a positive force in the world. It’s definitely an ever growing, ever expanding mentality. (Interview #3)

The organic farming way of life continues to contribute to Ella's ethical and intellectual growth. She continuously learns new farming techniques by taking risks. She enjoys the learning process, and as she does this, she learns more about the land where she is working. By learning about farming and people and food, her conviction is to live sustainably on the earth and to make political change for a better social and ecological climate. Her mentors and friends have supported her in living simply, so that she has been able to choose a career and a place to live where she does not need to make a lot of money. As she puts it, the happier she is, the less money she needs. The community's support is immeasurable, while she continuously returns the support to the community, through soil development, education, and her commitment to organic farming and political involvement.

At the end of our last interview, we finished up mulching the land and decided to go check out the waves and see if we could go surfing.

### *Miles, a Commercial Fisherman*

I received Miles' phone number from a mutual friend who conducted marine biology research with fishermen. We chatted about the details of my study. He agreed to participate in an interview and gave me directions to his house. He and I did not make a specific time or date; he preferred that I drop by anytime because he was always working in the yard.

On the day I decided to visit him, I called to forewarn him of my arrival. His mother answered the phone, told me he was working in the yard, and said that it was a good day to visit. I followed the directions from the beach, up the road toward Miles' house. "It's a big white Victorian, next to the Victorian Inn," she said. It was easy to

spot as I came around the corner and saw the thirty eight-foot fishing boat hauled up onto land in his backyard. I parked my car on the side of the wide, dirt driveway and walked toward the ship.

I climbed the ladder to look inside the boat. I looked down in the cabin and saw a man in a green T-shirt and dark jeans, fixing something. He climbed out of the cabin to greet me with a handshake. He wore glasses, and his brown short hair swept over the top of his head to one side. Miles said he was in his fifties, but he looked like he was in his mid- forties: fit and in shape, ready to go fishing after taking a year off. Due to the federal regulations that had decreed a thirty-pound catch limit for cod, Miles had chosen to take the previous year off. He did not fish when there was a thirty-pound limit because it did not feel “right” to him to catch hundreds of pounds of cod, keep thirty pounds, and throw the rest overboard, dead. During the year of our interviews, however, there was a four hundred-pound trip limit, which helped Miles decide to return to the profession he knows and loves best.

They (the government) said last year I could go out and catch 30 pounds of cod if I wanted to. They told me I could fish for other stuff [fish]. So, if I was fishing for monkfish, I could have caught all this (cod) fish and heaved it over, taken thirty pounds [of cod] and brought some flounders or monk in. I chose not to do that. Because thirty pounds? What was I gonna do, kill all the fish for thirty pounds? I could go out there with forty nets and throw ten thousand pounds over and keep thirty pounds if I wanted to be a dink about it, but I didn't. I did not want to slaughter the fish and throw them over. I did not want to be a part of it...It is not my nature, Christ I did not need the money that bad.

I was disgusted with it [gunning fish over]; I was totally disgusted, so I didn't go fishing. I would not have a part of it, I said, “Well...I ain't doing it.” So, I painted around the house. This year they upped it to 400 [pounds], which is good.

Miles demonstrated excitement about going fishing again. He was smiling as he proudly showed me all the adjustments he had done to get the boat primed and ready to

be put back in the water for the upcoming season. Among the many small improvements, he had redesigned the deck to make it easier to move around, in the event that he had to go out alone. Before we could begin the formal recorded interview, he polished metal pieces while we chatted about regulations and the government. He said he thought that the regulations were working, but that the government did a poor job managing disaster relief money.

His son-in-law drove up, and we climbed out of the boat. They briefly discussed the land that Miles was giving to his daughter and Joey to build a house on. As Joey left the driveway, Miles clipped the microphone to his T-shirt and moved to stand in the sun to “suntan” while we conducted the interview.

Miles had grown up in a coastal town of Northern New England, only a mile or so up from the ocean, in the house that he lives in today with his mother. His mother owns the house and rents out four apartments in it. Miles reminisced that there used to be only one mailbox on the road--theirs. Throughout his life, he watched his neighborhood develop. “Progress I guess. We would go over there and steal lumber, so we were glad they were building,” he said. His siblings and daughters all live within a close vicinity.

Since Miles was born, his family and friends have been part of the fishing community. His father was a boat-builder for commercial fishermen. The neighbors and their children were also exposed to fishing. In addition, weekend recreation for his family was to go out on the water to clam and fish.

[Growing up] was right here; this is it, Main Street. End of the street you got the beach, my skiff used to be down here where the fish houses are. There was a little cove and I kept my skiff down there. My other brother, he's seven years older, who lives up the street, had his skiff down there also.

...I built my skiff with my father when I was 13. He had the plans, I cut them out, did what I could on the band saw... Another friend Jimmy Mills, his father [James] was a boat builder; he used to live down here just a little bit. My father and James Mills, that was camaraderie, he would go down to his boat shop, and visa versa.

...I went fishing on the weekends, keep on going back to [the fact that] most of my life has been on the water, not commercially, but bobbing around. I would get up, my folks would go on the weekends digging clams, and then go fishing. They would go haddock fishing, strictly, every weekend. Everyone went fishing, the whole marina, it was a fun time.

...I grew up under this boat right here, I built this with my father [he pointed to his boat in the yard]. I built the other two with him. That is: help him, and then go play ball on the lawn. I would hear him yell, and I would have to go in and hold something for him and then back out into the game. Here I still got the same boat, doing the same thing that he did. It is in the blood.

Miles' description of getting into fishing came off as very as a matter of fact. He spoke dryly as though there would be nothing else he could have done. As a teenager, he began his commercial fishing career with a small lobster business.

I had 15 traps. I had them all along the front in the cove. I could see right down through the kelp and stuff. I did not go far out. I'd get my lobsters and go cash them in, just like the other guys, just like the big boats. I did not get as many, but got a few and paid for gas.

It seemed like the thing to do at the time, it was either that or what could you do when your 13, bag groceries? ...That was when I was 13. I think somebody else was hauling my traps. I only had 15, so when you go out you don't get anything, I got out of the business, I said, "I think somebody is ripping me off."

...So I went and shifted to the marina part of it, I have always worked on the water... Just being a kid, you know pumping gas and painting bottoms, worked party boats. So I grew up down there. (Interview #1)

Eventually Miles left commercial fishing for more money in construction. He did this until his boss died an unexpected death. Then, in his mid-twenties, Miles returned to fishing commercially with his brother.

I was over in a nearby town, [doing construction] for six years from 19 to around 25, my boss died early, and I was 25... I said "well, lets see, change of career." My brother was a lobster fisherman, so I went out with him for a little bit, we bought some nets, hauled some traps, that is how I started. It was in the blood, I guess it left [when I built construction], and then it came back.



Miles and his brother slowly saved money over time and bought equipment that allowed them to fish efficiently, go further off shore, and locate their nets more easily.

Eventually, the two brothers split up and fished their own boats.

He [my brother] got a bigger boat. I got divorced because I went [fishing] too much. I thought this boat was big enough. He wanted to go way out, 100 miles... [I do not go] outside the suntan oil smell, that's just the way I like it. Close to home, those days are gone: way out [off shore] thrashing. Believe me its not like I haven't done it. But no, I like sleeping in my big bed. Going out at 5 and coming back at 12 [noon]. And not working too hard.

Aside from the fact that he doesn't feel like he could have done anything else for work, Miles also said briefly that he had gotten into fishing because of his love of water. He claimed that over time the ocean had "gotten into his blood." When Miles shared how much he liked water, he expressed it through an anecdote about one of the local kids who at the time of the interview was like Miles had been when was when he was young. He could tell the kid liked the water and would someday be a newcomer to the commercial fishermen's community.

There is a few [local kids who are interested in fishing]. One boy, Donny's kid, who is only eleven, at Rye there, he is coming along. He's got the skiff and he's got the motor, [just like me]. Now why did I have the skiff and the motor, and why does little Johnny have a skiff and a motor? Because he wants it. Out of 30 kids in the class, he is the only one with the skiff and the motor and the trap.

Something inside that kicks it off, you enjoy it. You like the water. Some people don't like the water, scared of it. He isn't. He is gonna be my next helper. He doesn't know it yet, but another couple of years. He likes the water, I can see that.

Miles said he would like to eventually train this boy, just like he had been trained how to fish by other fishermen. Since he was in his mid fifties, and he had been commercial fishing since his teens, he had trained many of the younger fishermen in the

marina. He named a few fishermen he had as crewmen who now captain their own boats.

Same with any profession, you get to know the people you work with, whether you are banging nails, office work, fishing, we are all friends. Rob, that kid started with us. Back in 1980 something, now he has his own boat that happens a lot. That happened to another kid who went with us, Charlie, [now] he got his own boat. Scott got his own boat starting with us. My nephew, "Uncle Miles please take me." "Alright." He started and he got his own boat.

Miles discussed the importance of camaraderie in the fishing community. He shared how they help one another out by telling each other where the fish are, informing each other where not to go because the bottom is rough, or warning each other of other issues.

It's nice to get along with somebody instead of bickering with them. Like if I get my gillnets, and I see a dragger over here, and he doesn't know where my flags are, he might drag into them. Believe me, I have been dragged into a thousand times and it doesn't feel any better now than it did when I first experienced it, when it just about wiped me out, I think how can a guy be so inconsiderate. What did he do, have his eyes shut? You know, "hey uh, open the window, look out the window, look at my flags, whatever you want to do, still dragging."

Miles considered the commercial fishing community to be his personal and professional community. Later, during the second interview when I would go fishing with him, his relationship with other fishermen would be evident. Then I observed him talking on the radio while we steamed out to sea. He spoke about other fishermen, birthdays, softball, where they may be finding fish, fishing stories, and regulations. In addition, during that trip I would observe him train a novice, another form of fishermen's camaraderie.

We know each other for years. You go out there all the time, as big an ocean it is, you see the same people day after day, so in one aspect it is small. You see guys, you shoot the breeze on the radio. It is our own world out there, we don't

want too many people infringing on it, it is bad enough we have the guards flying around and now we have the marine patrol.

He said there is camaraderie and competition among the fishermen. However, ultimately they are there to support one another. In addition, he claimed that recently there had been no competition because of the regulations.

What's there to compete about getting four hundred pounds of cod? Just because you get your four hundred you are no big shot anymore. You used to be a big shot when you struck the dock and had 15000 [pounds] of Pollock or something. Christ you had people looking down at you thinking you were gods. With four hundred pounds, I mean, they've taken the competition away, its not there anymore. You are almost guaranteed your four hundred. Whereas before you weren't guaranteed anything.

Before the regulations, the fishing industry was a "free for all," and the competition was fierce. Every man wanted to catch the most fish. This mentality made it difficult for fishermen to self-regulate. Miles initially said he thought fishermen could self-regulate, but then he gave an example of how competition makes it difficult. In the end he claimed he probably could, but others might not be able to.

[Take Lobstermen who currently are not as regulated by the government], if a guys got 800, well, the other guy wants 801, and if he knows that he's got 801 then he wants 802 traps out. If he's got a 1000 out, the other guy wants 1200. It's competitive like that.

While Miles and I spoke, he moved with the sun, standing near his boat.

Occasionally he yelled back and forth with his crewman, Colin, who was busy sanding and painting the bottom of the boat.

He's [Colin] gonna [fish] this year. He's fished with me before, we got tuna together, but he's Colin. He is what he is. Try to keep him focused this summer. You know maybe he will slack off on the alcohol, help him out a little bit.

Miles shared with me that he wanted to help Colin with his drinking problem by hiring him, but he also was prepared to go out fishing alone if Colin could not work. In fact, when I called Miles for our second interview, he told me that "Colin got messed up with the law because he is a raging alcoholic." Miles had fished alone and then hired a

new crewman who had never fished before, Bob. He invited me to come fishing for the second interview the following day. It would be Bob's second day on the boat

The second interview began at 5 AM. I met Miles and Bob at the docks. After brief hellos and introductions, we walked down the ramp to the dinghies tied to the dock. Chris (another participant in my study) was turning his boat around in the harbor and leaving for a day of fishing. He yelled, "Miles!" Miles, laughed and waved back in a relaxed way and yelled, "Chris!" As Chris began to turn around to head out toward sea, the two of them shared a joke and laughed. When we were about to get into the dinghy, Chris yelled out to me "Hey, nice road race!" Chris had seen me running in the local 10K the previous weekend. I smiled, waved, and yelled, "Thanks," as he left the harbor.

Miles prepared to go out fishing by checking the engine. Then he unscrewed some tops on the floor of the boat and showed me what he fixed over the past year while his boat was hauled up on land. He said it used to be a lot messier with oil everywhere, but now it is clean, with a better design. He was proud of his workmanship. Shortly he started the engine, and he patiently but commandingly walked Bob through untying the boat from the mooring. When we were free, he slowly turned the boat toward the mouth of the harbor and began to steam out east into the Atlantic Ocean. The gray sky seamlessly melted into the ocean horizon. The fog collected on the windshield, requiring the wipers to brush back and forth.

Soon after we were out of the harbor, Miles received a call on the radio from Chris, "Miles!" They chatted about how Miles had a lot of crew today. Miles told a story about the day before, when he had a federal observer come and observe him all

day. He said the guy was a football player from Notre Dame College and weighed easily 250 pounds. He said it was funny to see this huge guy trying to take notes and stay out of the way. Miles and Chris both chuckled.

Right after they hung up Mike, another participant in my study, called up on the radio. Miles and Mike talked about the softball game that they were playing in later that evening. After a bit of softball talk, they talked about fishing, the co-op, and the fairness of pricing fish. Miles told Mike his thoughts about how they could make more money. His idea was for the in-shore fishermen to start a coalition, and to sort their fresh-caught-that-day-fish from fish caught by the off shore fishermen days earlier.

Later he explained to me that in-shore boats have a higher quality catch because it is fresh, as opposed to trip boats, which may bring in four-day-old fish. The fresher fish, he claimed, can yield a higher price. However, at the co-op, all the fish gets mixed together and the price is averaged out. The manager of the co-op, Al, another participant, later told me that he sometimes averages the fish together, but at other times he pays the fishermen more money for higher quality. When Mike and Miles were finished commiserating about prices, they talked about where they were going to fish that day. Their last topic of conversation was Colin's drinking. They chatted a while about wanting to help him, but that Mike said he feared Colin was "unhelpable."

When they hung up, Miles turned to me and said, "Ahh, I need water. I am hoarse from talking so much." He grabbed his two-liter bottle of coke and took a drink. Miles reached below the panel of controls for a little felt bag. He poured the contents out onto the dashboard. Small, white calcified objects rolled out.

These are sounding stones of cod [from] along the backbone, keeps them balanced. Without them they would swim like this [he acted out swimming on

their side]. They are in the back of the head, the spurs are encapsulated in a liquid. I think it is just calcium and keeps the fish level, this is what the observers [men and woman who come on the boat to make sure they legally harvesting fish] do. They saw that in half and count the rings, just like a tree. To see how old the fish is. All fish have them [otoliths are the scientific name].

...[I have kept them because] I throw them [he threw them out on table] and count the up ones and see if it was gonna be a good day. One down, four, five, six, seven, eight, look at all of them up, see! Voila. They are all up. Still got the bag. Sometimes they will be all down and sometimes they will be all up. We used to smoke the peace pipe we did not give a shit on the results. These are big fish, see how big that is?

I asked

Miles to share with me how he chooses where to fish as he navigated his way toward his big black flags that bobbed in the water. His gillnets were attached to the black flags, a hundred feet below the surface of the water, hopefully full of fish.

You have to think like a cod, plus I caught from here before. Over the years, I got a spot here, a spot there, stay out of there. I know a whole bunch of spots, but there are few that produce. This one has, but I will give it couple of times, like I said, if it doesn't, then *sftt*...[act out pulling out] I will move it a little bit.

It is funny, because fish could right here and you could be over there, and you don't get them because they don't move. They get bunched up, or they are spawning doing their thing. Piggy backing.

We looked out the window and saw seagulls flying by. Miles told me he loves seagulls. He believed that one of his best friends, who died commercial fishing, came back to life as a seagull. As a result, he talks to the seagulls. Bob confirmed that he does indeed do this. Miles also told me that he helps seagulls when he can. One time he saw a seagull on his deck with a plastic six-pack holder around its neck. He could not help but wonder if it was his friend, so he pulled the bird in with the gaff and released its neck from the plastic.

Before we clipped the recorder onto him, Miles shared more about growing up with his family. They had always had this house in Orr's island for vacation. He

always lived in the house in the ocean town, except for the twenty years he was married, when he lived in a nearby town. While he was married, he would always go back to his family's house and help out, by mowing the lawn or fixing the porch, because his dad was ill. He said none of the other siblings helped out. When he divorced he moved back in with his parents, a time which happened to coincide with both his parents being diagnosed with cancer. The house was falling apart, and he helped build apartments in the house. Soon afterwards, his dad passed away, and Miles kept living with his mother to take care of her. As we talked, a solitary picture of his daughters, hung by a pushpin, swayed with each tilt of the boat. His daughters were twenty-eight and twenty nine years old.

As we arrived closer to the black flags which indicated where his nets were set, Miles started telling Bob what to do to get ready to start hauling them up. He explained to me that he prefers the black flags to the orange because as he gets older his eyes can't see as well, and black sticks out the best against a back-lit sky. Once we pulled the first buoy on deck, Miles and Bob started to haul up the nets over the side of the boat. The next step was to begin to feed the line up over the side metal guide into the grinder wheel and then onto the "picking" table. After picking through the net, they pulled the net into a huge wooden crate-type structure located at the back of the boat. With each set, this box eventually filled with nets.

As the nets came up from the water, Miles and Bob asked me to watch the electronic screen for images of big fish coming up in the nets, so that they could prepare to grab them quickly. The fish came over the edge of the boat and onto a table where the two of them picked through the nets to get the fish untangled from the nylon mess.

They had metal tools with little hooks on the end of them, which Miles could work instantly. With a snip here and a flick there, he could figure out which way the net was wrapped and undo it. Bob struggled with the tool and the nets. His fish were seemingly getting more entangled in the mess of mesh nets.

I observed Miles patiently train Bob how to get fish out of the nets in a more efficient manner. He told him how to use the “pick” tool. It is a hook with a small plastic handle, and he uses it to get the net around the fish’s nose. Miles explained to Bob that “You should always push the head through, never try to back it out.” He showed how to unroll a fish out of a net and how to untangle net with quick moves of tension. As Miles trained Bob, I listened and attempted to help them take the fish out. However, my fish also seemed to get tangled.

The regulations were referred to often during the first haul, as they were deciding what they could and could not keep. As it was only Bob’s third day, when it came time to start hauling, Miles carved notches in the side of the table to show the different regulatory lengths of what they can keep: 11-, 12-, 13-, and 14-inch and 21-inch lengths. At times there would be an undersized fish that was still alive, and they would throw the fish back over. If the fish were of legal length, they would put the fish in the plastic boxes under the table.

After hauling and picking the first set, which did not have a big catch, Miles said he was going to move closer to where his nephew was fishing. His nephew had radioed him and told him he had reached his limit already that day. We steamed to the new spot and dropped the net. Miles scribbled the numbers of their location on a paper towel



lying on the dashboard of the wheelhouse. The paper already had several other location numbers scribbled on it.

When they were ready to set, Miles taught Bob how to drop the first weight and buoy, and then drop the nets in over the back of the boat. The net would be pushed over a bar at the back of the boat, over the spreader and back into the ocean. Both ends of the net were attached to a cement weight with a buoy. Bob looked anxious, as it was not an easy task. Miles drove the boat slowly, standing at the side of the deck, watching and directing Bob as they went, occasionally walking over to fix a mistake, then letting Bob continue. Miles showed Bob how to use the spreader with a quick flick of the hand. By the last set, Bob started getting it, and proudly yelled to the cabin, "Hey Miles, check out this flick of the hand." Miles looked at me and said, "It is the little things."

When that task was done, we steamed over to the black flags of the second set. The second was only six nets, which produced an "OK" catch according to Miles. However, Miles was very happy about the third set, which contained many big fish.

While Miles picked through fish, drove the boat, and trained Bob, he would also talk with me about his early fishing days and the impact of federal regulations on the fishing way of life. Miles reminisced about the early days as having a strong fishing community, competition, and free enterprise. He shared that although regulations have helped the fishing industry, they also have changed these aspects of fishing. The regulations were set by the government to save the codfish populations, which, according to fishermen and scientists had declined to a dangerous number. Miles agreed that overfishing had an impact on the fish populations.

I think it's coming back. Granted, I think maybe at times sure we over fished it, but [at the time] it seemed like the fish were endless... We might have hurt that

species by doing it [fishing] that way, wailing on them so to speak. The effort! Gloucester is not what it was 20 years ago, [now] there are no boats down there. You take all those who don't fish anymore that were really pounding on the fishery, taking a million pounds a year, they're not in it anymore. It has to have an effect. You gotta figure there are ten boats that caught ten million pounds, that is ten million pounds that didn't get harvested and they're gonna reproduce, so that could snowball, it has to.

Miles also believed that some of the population decrease was due to natural cycles, ecological changes, the moon, tides, and other natural causes. He strongly believed that the fish populations were rebuilding themselves both due to natural cycles and the help of the regulations.

They [the government] wanted to increase the stock, so that's how they have to do it: have to decrease effort. Sometimes [they have to] close areas, and they have done that. So now, [after the heavy regulations], we [the commercial fishermen] all catch fish. I think it [the fishing population] is [stable]... No matter where you go, there's fish. ...We're all satisfied.

The term "satisfied" meant that the fishermen were catching fish and making money. Miles continued to share how different fishermen have different needs for financial and economic profits. Miles contended that he has low overhead and does not need to make a lot of money, which allows him to fish more responsibly. He spoke of other fishermen who need more money for their debt, and said they tend to fish less responsibly.

Some people need more money than other people do. I don't need much to get by. Other guys got big operations and they need. Joe said he's got 7,000 a month before he sees a nickel. I can go in one day and see a profit.

I don't catch as many fish as I can and [then] gun them over. [I do it the way I do it] because I am me, I don't want to throw any fish over... it's the way I am. I am not gonna go out there and catch 400 pounds of cod and throw a thousand over, that's not too good, is it? [It is not good] because we're supposed to be preserving the species. That's why I run my clock, most of the guys don't

do that... it allows me to catch no more than I am supposed to, and the other guys don't give a shit, ...because Joe's got a \$7,000-month mortgage payment.

It [my way financially] hurt me. But, in my mind it worked out. But my checkbook, I could have made a hell of a lot more if I had just did it the other way. I don't know [if I mind sacrificing the money], that's the way I do it. I don't want to throw any fish over. I don't throw fish over. Everybody should do that too but they won't. We're all different.

Because all the fishermen are different, Miles agreed that federal regulations were important. Not everyone would consider preserving the species when they fish; instead, they may be thinking of their mortgages. Miles also felt that many of the regulations are effective in allowing fish to spawn in closed areas. However, he believed that the regulations helped rebuild the populations, and that now the regulations should change accordingly. He felt that the government only listened to the government scientists who claimed the fish populations were not rebuilding, and not the fishermen's claims that the populations were rebuilding, and this frustrated Miles. As a result he felt disempowered.

Ocean is filling up with fish again, and the scientist won't believe it, back to those guys again. There is fish everywhere, everywhere you go is fish.... "You fishermen, you're all biased, why wouldn't you say the stocks are there?" However, it would show in the reports, if they weren't there...but, fuck we are gunning them over, thousands of pounds.

So it's not an absolute science. Fishing is a science, but there is plenty room for error. God knows there's been a lot of errors made... They [the government] try and figure out the ocean floor; that's pretty tough. They got a boat that cruises around that drags for fish and if they don't catch anything, they think the ocean is empty. They report back to headquarters, "We are not doing too good today." [This is] because they don't know what they are doing, or the gear's no good. Then that report goes to commerce and bingo next thing we know we got a law passed, because there's boats out there flying around the ocean not catching anything.

Although the government does not seem to listen to the fishermen, they invited the fishermen to participate in the public hearings. Miles believed that this is a waste of his time and an insult.

Oh god, I put three four days in a row [at a public hearing]. That's when they ended up with the thirty pounds of cod. The whole world was there speaking economically it won't be good, but they still went to thirty pounds. They didn't listen to anybody, so why bother going? Go ahead and make it out yourself, what ever you want is good... Its: whatever you come up with, go ahead and do it, because its what you are gonna do anyway.

Miles provided other example of how the government does not always seem to make the appropriate decisions in creating regulations. He based these observations and conclusions on his own ecological knowledge. His example is in response to the regulation of dogfish.

Why would anyone want the ocean to fill up with dogfish? They are gonna eat the whiting, which they are trying to save. What do dogfish do? They eat. They eat all the time, and they grow... They eat the small fish, even the cod and the stripers. They regulated the stripers, so they are thick as thieves. Right along the coast they eat all the small lobsters, tons and tons... It is decimating the small stock. So its, the dog chasing its own tail.

Although Miles believed that the regulations helped, they also put many people out of business. He, himself, left the business for two years, but was able to keep his boat and return to fishing the following year. He felt that the biggest problem with the regulations was that they imposed too many at the same time. Miles thought of new types of regulations that would help fishermen continue fishing, while also supporting viable fish populations. His idea of how to preserve fish differs from other fishermen, even in my study. His idea of regulating the number of nets is based upon his observations of fishermen's mentalities and the ecology of the ocean.

There's a lot more management they could do that would work. They could limit the nets, I suppose limit the nets would be number one. Think about it, if I can catch them [the four hundred pound limit] in ten nets, why should somebody have fifty nets there? One guy [fishermen] says, "Jesus Christ, I threw over four limits." I said "Well, that's great, that's good. That's just wonderful," I says. I didn't get my limit; I had like three hundred pounds, because I only have ten nets. A lot of times on a short string you won't get your limits, but your close. Then you got the other guy that's gunning four limits over, to pick through the

hounds [dogfish], to get three thousand or four thousand of hounds. So we got a long ways to go.

In addition to number of nets a fishermen has, Miles supports using a larger mesh size. This is also based upon what he knows about lifecycles and spawning cycles of fish.

[I can keep the stock high with] big mesh gear like I fish. I kill the big ones, gotta kill something, I'd rather kill the big ones and let the little ones grow up. Whereas twenty years ago everyone was killing the little ones, they were out there with small mesh, 5 1/2 inch like that. Killing all the small fish, won't help. You don't have any big ones to grow up. So with the eight-inch, big mesh, right, I work on bigger ones, they already spawned.

On the return trip, we steamed back to shore after a day hauling gill nets and catching cod, flounder, crabs, and other sea creatures. The boat was on autopilot. Miles was sitting in his captain's chair and I was standing, looking through the windshield wipers as they squeaked across the window. Miles happily asked me if I thought the sounding stones worked. I said, "It seemed like it was a good day." I asked him why he liked to fish. He looked at me and leaned forward, spread his arms out pointing to the ocean, and smiled knowingly.

Can you feel it? I mean driving around, I mean hey, what could be better? Plus, got something on deck right, 500 bucks for the day. I gotta work all week on land for it, come out here and make it in a day.

About fifteen minutes later, while he was sharing a story about tuna fishing, and the adrenaline rush that is associated with fishing, he added again why he loves to fish. As he shared this story, the boat continued on autopilot towards shore as his arms were acting out hauling in this gigantic fish.

Seeing shit like that. That is why I am out here. Who else would see something like that, you really get the adrenaline and everything. The chances of losing him are just as great as getting him. We are lucky we got him. What a monster, I got 7700 dollars for it.

Miles relaxed into the captain's chair for a little bit while we talked. He appeared to be very laid back, but Bob told me that Miles can yell at times. Bob said every captain gets that way. Halfway back, Miles got up and asked me to keep an eye on where we were heading. He taught me how to read the directional machine, and he went to the deck to teach Bob how to clean and cut the fish. They washed out the stuff and threw it overboard, which caused the gulls to flock in a frenzy behind the boat. After the fish were all cleaned up, Miles returned to the captain's seat. Then the co-op called on the radio to check on his arrival time, to ensure that a pickup truck would be at the docks waiting.

We arrived back in the harbor and tied up to the dock. While we waited for the co-op truck to finish unloading the first boat that arrived, Miles, with a few quick slices of the knife, filleted a flounder for me to take home. The first boat cleared out and we moved into its slot, directly below the young man who was driving the co-op truck. The truck had a pulley with two hanging hooks. Bob and Miles slid over two to three boxes at a time and hooked them, and then the co-op employee lifted them up and put them into the truck. Miles said the truck-driver tags them, and then the co-op gives Miles a weight slip indicating how many pounds he brought in and how much he will make.

After the fish was unloaded, Miles moved the boat to its mooring and rowed us back to the dock. I told him I would call for a third interview as we waved goodbye and the two of them climbed into Miles' old pick-up truck, circa 1985.

In the third interview, Miles and I met on a sunny day at the docks at the harbor where his boat was kept. He rowed us out to his boat and we stood on the deck in the

sun while he discussed the fishing community, regulations, and where he considers his home to be. He reiterated a lot of what had been talked about but added points of clarity.

Miles had lived his whole life in this coastal state and vacationed with his family on Orr's Island. He had always fished from this area, with the exception of a few trips out of other New England port towns. He had most recently attempted to begin a rotation, where he winters in St. John's and then summers back in this region. He told me that now he would remain in the state all year because his mother was still alive and he felt an obligation to take care of her. He does not know where he will ultimately end up, but he is in his fifties and has never lived anywhere else, except for St. John's.

The purpose of these vignettes was to describe how I met two of the participants in detail and what the interviews felt like and what they consisted like. For each of the ten participants, there was a coinciding story of meeting through three different interviews and observations, where personalities emerged. However, each participant followed a similar format of three interviews, ultimately leading to the construction of their own meaning of their life, describing their sense of place in their own words. Following is the data analysis of all ten participants' data. I begin with the organic farmer's data and then I present the commercial fishermen's data in a similar format.

#### Organic Farmers Data Analysis

In the following section, I discuss how the data revealed themes that demonstrate how sense of place is developed within a social context. These results suggest that the current framework should be expanded to emphasize the role of human and non-human

community: the development of a sense of place and the learning of environmentally responsible behavior must be situated within a social context. This study lends support to the view that for sense of place to move people to ethical action, it is crucial for them to recognize, and to participate in, a community of support and care.

I initially present the three broad themes that emerged after two rounds of coding, multiple readings of the transcripts, and condensing of multiple emergent categories. Then I provide the data in the form of transcribed quotes to support the development of these three themes.

The three broad themes that emerged from the data demonstrate how the social context of the human and non-human community contributes to the development of sense of place and environmentally responsible behavior:

1. *Initial preferences: A starting point for situating place and identity.* The five participants did not begin with the desire to farm organically; rather they began with initial preferences and values. These preferences included working outdoors, being independent, and emergent values to right some of the environmental and social wrongs.

The farmers' desire to make a social difference could be defined as ethical because they felt an obligation to do something "right" with their careers and lifework. These values differed slightly among the participants. For three participants, they included a desire to right some of the social and ecological wrongs. As for the other two, one wanted to grow food without chemicals in order to help other people remain healthy, and the other wanted to live simply and grow his own food as much as possible. As a result of their immersion into the community, over time the participants' preferences



and values developed and led them into a way of life that strengthened their values and associated obligations. This is described in the following two themes.

2. *Understanding sense of place through human and non-human community relationships.* The literature review indicates that sense of place is defined by place attachment, ecological knowledge, and community membership. Place attachment refers to the emotional bond that can exist between an individual and a particular environment. Ecological knowledge is considered to contribute to one's ecological identity, which inspires environmentally responsible behavior. According to the received view of sense of place, community membership partly emerges from shared experiences with the local ecology and social processes, including local politics, community issues, human activities, and economics.

The data suggests that a large part of the development of the farmers' sense of place was the relationship between the farmers and the local human and non-human community. The social context of the local community contributed to the development of sense of place in two ways. First, the non-human and human community encouraged, provided for, and/ or helped the participants to live in the specific place and to actualize their initial preferences in the form of organic farming. By enacting their preferences in the form of organic farming, the participants developed a passion for farming. This contributed to their development of place attachment. Secondly, over time the community taught the participants the associated ecological and social knowledge required to become successful farmers. Through immersion into the community, the farmers also learned the ethical dispositions of the community members.

The human community consisted of the local people with whom the participants interacted, including family, friends, other farmers, customers, and landowners. The non-human community encompassed the local ecosystem, the organisms that constitute the soil, ocean, and landscape. The non-human community also refers to the ocean, soil, or landscape itself. Immersion in the human social context contributed to the participants' spiritual perception of their relationship with the non-human world, as disclosed when the farmers discussed their interdependence with the natural world in terms of supportive and shaping relationships.

The relationships the participants developed within the social context of the farming community supported and shaped the development of their sense of place and their evolving commitment to the way of life and to the ethical tenets of the organic farming profession.

3. *A seamless way of life: From sense of place to environmental ethics.* As the participants spent time in the community, they learned more about organic farming from the people, land, and ecosystem. The supportive social context of the organic farming learning community contributed to an ever-evolving and sustaining sense of place, which in turn led to the participants' deeper commitment to their values and to the way of life. The participants developed a felt desire and obligation to reciprocate the care and support back to the human and non-human community.

The organic farming way of life is all encompassing. As a result of this intense immersion into the social community, the participants' perspective of organic farming was that it was seamless. This meant that there were little boundaries between work, recreation, family, friends, and colleagues. The participants perceived farming as a way

of life by spending extensive amounts of time learning from other farmers. They learned how to farm effectively, which requires hard work and a lot of commitment, and yields little monetary reward. Through learning about sustainable agriculture and the ethical commitment to organic farming, they began to experience the ecological benefits of organic farming for the soil, which also led to economic benefits. In their commitment to reciprocate care and support, they began to develop a desire and obligation to preserve small family farms for both aesthetic and health reasons. Therefore, the participants increasingly viewed their jobs as lifework: a positive ecological and social contribution to the community.

In short, as a result of immersion into a social context, the participants evolved from having initial preferences to eventually living by their personal environmental ethics. The resulting actions from this developed ethic resulted in increased public involvement, active citizenship, and commitment to sustainable agriculture.

These three themes of initial preferences, sense of place, and environmental ethics, are comprised of more specific categories, which were even further distilled into sub-categories. Using the transcribed data, I present these categories in the following sections. These categories and subcategories are not uniformly consistent across all five of the participants. The influential categories that I discuss in the upcoming sections are the ones that the majority of participants referred to and the ones that emerged as important influencing factors to the development of a sense of place and their associated behaviors.

*Initial Preferences Supported: A Starting point for Situating Place and Identity*

The participants began with the initial preferences of working outdoors, being independent, and emergent values to right some of the environmental and social wrongs. The participants' desire to work outdoors stemmed from a love of being outdoors. All five participants loved being outside because of their childhood experiences in the out-of-doors. These experiences differed, some of them in gardens or at farms, and others simply outside. The love of the outdoors, nature, and the dislike for the indoors were influential in these people's lives. All five mentioned that they could not imagine being committed to a career that did not entail working outside.

Ella professionally desires to be an agent for environmental change, but that she believes she cannot do this in an office setting.

Just mentally, to be in a city, to be in an office, on the phone, on the computer all the time, just wouldn't work for me. I need to have my hands dirty. I am an experiential learner, really like to get my hands on something, then I can learn it much quicker. (Ella, #1)

Similar to Ella, Elizabeth reflected on how she wanted to both help the environment and be outside. As a result of being outside and viewing farmland, she had begun to romanticize farming as a better way of life.

I was always a really outdoorsy kind of tomboyish kid, loved to be outdoors. In college, living in the Blue Ridge, my boyfriend took Saturday mornings and just go driving around the countryside just looking at all the farms. I romanticized it, looking back to a previous era when people did farm. Things were simpler, and both of us kind of thought life was probably a little bit better. Those are probably two things that kind of led me to [think about] wanting to be outdoors, and to farming in particular. (Elizabeth #2)

Richie spoke of being born under an earth sign, Taurus, and therefore believes he innately likes to work with the earth and doing hard labor. He also shared how much he likes his job because he is outside.

People get up in the morning and they get in their car and they drive in rush hour. They get to their office and they sit there at their desk, "Oh, I hate this, oh I don't want to be here, oh, I don't want to go to work Monday morning, on and on." I go to bed at night and I can't wait till the sun comes up and I can get out here and work more in the garden. (Richie, #1)

Parker shared that he could not work in a nine-to-five office setting.

I think why people end up pretty miserable and divorce rate might be so high is because you end up in jobs that essentially do not stretch their abilities and expand their talents. In other words, they are dead. My goal is to stay alive as long as my heart is beating, and while my heart is beating I don't want to end up dead someplace under fluorescent lights. It would kill me. (Parker, #3)

Stephen said he loves to be outside and can't understand people who like to be inside. He is only inside when he absolutely needs to be. He needs to be outside and work "with nature." He believes that because he grew up farming, that farming was his venue for working with nature. He admits that had he grown up fishing, he might have ended up fishing.

I think in a different situation, I would have found fishing as satisfying as I find farming. I don't really have anything to go by, I have never really done any serious fishing, but I can just sort of imagine it being sort of a similar kind of thing. Certainly different because you are growing things on the land and just harvesting things from the sea, but still it is working with nature rather than against it. (Stephen #1)

Preference to work outside was important to all five of the participants, while independence was also an important preference for four of the five participants.

Independence was sought differently by the four participants. Richie, although quite personable and social, prefers to live his life separate from others. One example is how he constructed his house so people could not see what he was doing; he placed his porch on the backside of the house. Parker wanted to own his own business so he could delegate work, and do the jobs the way he likes to have them done. Stephen originally wanted to grow all his own food and live more independently from the mainstream food

production. Ella feels that independence is what keeps her in farming. She believes that she can work for other people as long as she feels freedom to try out and learn new things. Part of the desire for independence was evident in all five of the participants' desires to be in a place of fairly low population density.

When I was looking for a place to live around here, like I said at 12 years old I knew I wanted to live here. I looked on a map to see where there were no roads. When I looked at a map, this general area caught my eye, because there was nothing out here. You could lay down in that street and take a nap and a car wouldn't go by in an hour. It's a lot different now. (Richie, Interview #3)

In addition to the preference to be outside and independence, the participants each had preferences to contribute to positive social and ecological change. Parker, Ella, and Elizabeth had a commitment to positively affect the environment. Richie developed a commitment to grow food without chemicals to reduce cancer. Stephen's commitment was to grow food simply and live a more self-sufficient life, while returning to his roots of living among agriculture.

All five realized their preference to make positive social change through education, travel, and/or direct exposure to the associated issues. Education was both informal and formal education. Informal education included reading books and interacting with people who taught the participants about issues. Formal education was comprised of experiences in college where faculty influenced their environmental and political thinking. Travel was defined by traveling and/or moving to other places, where the participant was exposed to new people, places and issues.

The preferences that the participants became aware of became a defining feature as they interacted with other people, places and things. These aspects of the participants' human community supported the participants to enact their preferences

through introducing them to organic farming, by encouraging them to follow their dreams, introducing them to other farmers or land owners, and/or providing land or financial support to organically farm. The participants believed that the non-human community supported them in the coparticipation of constructing knowledge about the place so that they could effectively farm, which embraced a spiritual understanding of the place. Ultimately, the participants discovered a community among organic farmers. With the help and support of this community, they developed a sense of place.

*Understanding Sense Of Place Through Human and Non-Human Community Relationships*

The data suggests that the development of a sense of place is a result of immersion into a place and community. The participants' community helped the participants to enact their initial preferences by moving to this region and beginning to organically farm. In this section I show how the participants' involvement with the local human and non-human community contributed to their place attachment and their ecological knowledge, socially contextualizing the development of sense of place. In the following section, "From sense of place to environmental ethics," I focus on the public involvement component of having a sense of place.

First, I describe how the human and non-human community played role in inviting the participants to move to the region, initiating their place attachment. Next, I show how both communities' contribute to construction of ecological knowledge and ecological identity through introducing the participants to organic farming. I first introduce the human community's support and then continue with the non-human community's support. At times, both the human and non-human intertwined to support

the participant. Last, because the non-human community is perceived differently than it is usually received in the modern culture, I discuss their personal and spiritual relationship to the place.

The human community included family, friends, other farmers, and other people in the community who supported farming as a way of life but didn't do it themselves, such as customers and land providers. The non-human community includes the physical and ecological attributes of the place. Seasons, weather, land, soil, and local inhabitants', including bugs, mammals, and weeds are all examples of the non-human community.

#### *Human and Non-Human Community Contribute to the Participants' Place Attachment*

The participants in this study all lived and farmed in the seacoast region of a Northern New England State. Their sense of place was developed and sustained in this region. Therefore, it is important to note how the participants came to this region.

The five farmers in this study came to the state because of both human and non-human aspects of the community. All five participants moved because of friends and families' love and support, other aspects of the community, and the physical attributes of the place. Two of the five, Stephen and Ella, grew up in the state, moved elsewhere, and then returned because of low human populations, family, friends, landscape, and seasons. The other three, Parker, Elizabeth, and Richie came to the state later in life because of family, friends, the landscape, and/ or school.

#### *Family*

Family played a role that introduced three of the five participants to the region. Ella and Stephen grew up in this region, and Richie was invited to spend extended time



with his aunts and cousins in the region. All three left in their late teens, and then returned. For Ella and Stephen, being near family was the main reason for returning to the state. Stephen and his ex-wife wanted to be in New England because both their families were there. Although initially a boyfriend was the impetus for Ella's return stay in the state, ultimately it was her family that drew back in the first place and then encouraged her to stay.

Falling in love sort of got me back here, but then once I was back I thought, "My grandmother is old, my parents are here, my brother is here, and it's not so bad." At this point I [think I will stay here]. My grandmother is going down pretty quick, and I definitely want to be around for her. My folks are getting pretty old. I would like to stay. (Ella, #1)

Richie returned to the state because he his extended family always welcomed him to stay with them. In addition to family, friends were influential as well.

### *Friends*

Friends were important to four of the five participants' decision to either come to the region or stay in region. Parker's friends heavily influenced his decision to move to the state.

I had some friends [from college] in this state. I was at a point in my life where I really needed to step forward and get going with my life. I talked to my friends and they said, "Come to our state, we are all the support system you need." (Parker, #3)

Friends influenced Ella, in that she fell in love with a boy in the region. Elizabeth, who initially came to the region to pursue a master's degree, dropped out. She stayed in the region partly because of the network of friends she had. Richie partially returned to New Hampshire because he had made friends in the state when he lived with his extended family.

In addition to the human relationships that invited the participants to return, also influential were natural and physical attributes of the area: landscape and seasons.

### *Landscape*

The aspects of the landscape that attracted the participants included the agricultural setting, the beauty, and the ocean. Stephen and Elizabeth had an affinity for living near agricultural land. The seacoast region where they settled down used to be primarily agricultural land. This has changed in recent years due to development, but still maintains the aesthetic feel of agricultural land, fields of cultivated land, farmstands, and old farmhouses.

When Richie was twelve years old, he initially came to the town where he currently farms. He claims he knew at that time that he would return to the town as an adult because of the natural beauty.

We had a camp, right up the street here. The first day I ever went to the camp, I stepped off the bus and I looked up at these big pine trees, and the smell of pine. It was just gorgeous. I said, "This is where I am living when I grow up." All the other kids were like, "Ah ah, Richie is gonna live here when he grows up. Fucking idiot, 12 years old, already knows where he was gonna live." (Richie, Interview #1)

Ella realized she likes the ecological landscape after she had moved away for years. She had lived in the Pacific Northwest and traveled all over the world, and upon returning, she was able to see the natural beauty and the similarities to the other places she had visited and appreciated. Although she loved the other places she had lived, yet she still returned to this state and region and stayed.

I loved Washington while I was out there but when I got back to New England, I realized that so many of the things that I loved about Washington were here too. Going out in the Great Bay and just seeing all the lush little inlets and rivers coming in, that sort of estuary brackish water situation is very similar to the

Puget sound, and that struck me. I think that sometimes you gotta go away from where you grow up to come back and actually appreciate it. (Ella # 1)

Like Ella, Richie and Stephen also wanted to be near the ocean. Elizabeth liked the presence of the water because it reminded her of where she grew up. In addition to her affinity for farmland, Elizabeth was influenced to stay in the region because of the aesthetics of the landscape.

[When I came for college it was] close to the first time I had ever been to this state and I just instantly fell in love with the area, the landscape and the people. The area reminded me of where I grew up in Connecticut, on the coast. (Elizabeth, #3)

In addition to the landscapes, the participants also were attracted to the seasons.

### *Seasons*

The four seasons attracted all four of the participants to this region. Parker, in addition to friends, decided to come to this region because of the unique growing season for a northern region, due to the nature of being close to the seacoast.

There is a zone system that is based on frost-free days. They split the continent up into growing zones, and the growing zones are numbered so zone 1 is like the arctic, and zone 10 is like the tropics. Jersey is like a 5-6, and up here, in this little sliver of this state, it is a 5-6 as well. Very similar growing [to what I grew up farming in].(Parker #3)

Seasons played a role in Ella's desire to be in the state, not because of growing seasons, but because she loves the four seasons and the dramatic changes in each.

I love the seasons. Washington was beautiful but goddamn was it rainy. You really only had two seasons, rainy and nice. That's great, what a long growing season, it's much longer than here, but I just love these seasons. Spring, these days where it's sunny one minute and then its raining. The buds are all popping and the birds are back. I love all of them; I love fall going into winter. I love the whoie cyclical thing. I want to be here in New England. (Ella #1)

Stephen and Richie also mentioned their love and respect for the seasons. All five participants came to the state because of family, friends, the seasons, and the

landscape. They learned to appreciate the place and as a result did not leave. Instead they met more community members who also supported them, and ultimately the community support led to the participants' ability to enact their initial preferences through organic farming.

Through the support of the local human and non-human community, the participants arrived at organic farming as a professional career choice. Without the support of the community, they could not have begun to organically farm, because they would not have had land to farm and they would not know the local ecosystems and how to work within the limits.

#### *Human and Non-human Community Contribute to the Development of Ecological Knowledge and Identity Through Organic Farming*

The five participants' initial preferences to live and work outdoors, be independent, and to contribute to positive change in ecological and social issues were strong, however none of the individuals began with the conviction to organically farm, not even Stephen, who grew up on a farm. Instead, an initial supportive relationship developed between the participant and the human and non-human community, which led each participant to the organic farming profession.

Although each participant experienced the support from the human and non-human community to farm, some of their reasons for farming differed. Elizabeth, Ella, and Parker developed a passion to organically farm as they pieced together their values as a result of education and direct experiences with environmental issues. Richie and Stephen came to the state and grew their own food, which over time evolved into a business.

In this section, I show how the communities supported the participants to enact their preferences in the form of organic farming and then how organic farming contributes to the participants' construction of ecological knowledge and identity.

In order to successfully organically farm, the participant needs to know the ecological processes and to work with the processes rather than against them. As a result of their lives being strongly interdependent with the natural world, their identity began to become enmeshed with the place. I begin with the human community's support and then continue with the non-human community's support.

The support from the human community primarily came from family, friends, other farmers, and customers. I now introduce the human community in-depth. The family and friend contributed to the development of a desire to farm as well as helping the participants find land. Although prior knowledge from their family and friends contributed to their ecological knowledge, the majority of contribution for the construction of ecological knowledge came from the other farmers, who taught the participants how to farm successfully in their specific ecosystem.

As a result of the embedded nature of ecological knowledge in organic farming, I do not always explicitly point out how the participant constructed ecological knowledge. Instead, I assume implicitly that it is understood (see chapter three for the detailed description of organic farming) that in order to successfully organically farm, they must know about the local ecosystem and how to work within the confines of the limits of the system. For example, there is an inherent need for a farmer to know the local soil ecology, in order to know what nutrients to add. In addition, the farmer must

know about the local ecosystem to plan for crop rotation to reduce weeds and pests, while building soil.

### *Family*

Family played a role in all five participants' lives in their decision to farm. The role that family played differed from individual to individual. Three of the five, (Ella, Parker, and Stephen) had families who were involved with gardening or farming. Elizabeth got the idea for the pickle business because she loved her grandmother's pickle recipe. She also received financial support from her parents to purchase land. Richie's family influenced him because many of his family members died of cancer and he learned how to grow food without cancer causing agents.

Before Ella, Stephen and Parker were adults, they had early experiences growing food with their family. Although none of them thought they would farm when they grew up, they were influenced by their exposure to gardening and farming. Ella was exposed to gardening by her grandmother at a young age, and felt this shaped her desire to garden. Stephen grew up on a farm, where he lived and learned the farming way of life. Parker grew up spending time on his uncle's farm, where he was exposed to farming and the delights of working outside.

Stephen grew up on a farm and felt that farming was in his genes.

Both my grandfathers were dairy farmers. There was farming on both sides of my family all the way back to whenever my first ancestors came to this country. It is like farming is in my genes. It has always felt somewhat natural to do this. It's not like it was hard thing to learn. Certainly there were things that I needed to learn, but in some ways it is a way of life philosophy that was ingrained. I grew up in a farming family, neither my parents farmed, but both their parents did, and I was around a farm when I was growing up. I actually grew up here. It was just a great place to play. How can you help but learn those kinds of things, whatever they are, the things that you don't think about, but the way you look at things? (Stephen, #1)

Parker grew up spending his vacations as a child working on his uncle's farm.

My parents didn't have a lot of money and in lieu of going to summer camp I would go to my uncles for the summer, starting when I was about eight years old. Those were the best times of my life. It started out two weeks, then I really liked it, and I started going the whole summer. I got to drive tractors around the farm, split wood, which I thought was great. I would take my winter break, I would just go up there. Every vacation I would go up to my uncles and work on the farm. (Parker #1)

Although the participants felt that this influenced their decision to farm later in life, they did not realize it when they were still teenagers. The desire to farm and/or grow their own food came later as they remembered their earlier life experiences in conjunction with their later influential experiences of traveling and learning.

Stephen's commitment to live more simply developed out of a nostalgia for his ancestral background while he was traveling around the west after high school and dropping out of college.

During the time I was traveling and living out west, [was] when I decided that I wanted to do something on land somewhere... Growing your own food has always been a part of my life. I remember at various times being nostalgic about growing things and having some land. That probably played a part in the decision to come back here and look for land. (Stephen, Interview #1)

...While I was in Colorado, I would be driving in agricultural areas. I remember it as being a place I felt more comfortable... Being in the mountains was enjoyable, but I just felt comfortable in agricultural areas. (Interview #2)

When Stephen returned to the northeast, his grandfather supported him to grow his own food by providing the land.

My ex-wife and I had come back from Colorado and were looking for land pretty much anywhere in Northern New England. We couldn't really find anything we liked or could afford. I approached my grandfather, who owned the farm here, to see if he would be willing to sell a few acres so we could build a house. Not really with the intention of farming any scale but so we could grow our own food and provide for ourselves as much as possible. He didn't want to split the farm up any further, so he basically said that if I wanted the farm that I might as well have the whole thing, so that's how I ended up here. (Stephen #1)

Like Stephen, Parker believed that he became a farmer because of ancestry. His grandfather was a farmer in Italy before he immigrated to the United States, so Parker attributed his love of farming to the idea that it runs in the family. "Organic farming was something that was in my blood because of my family." However, the more direct influence in Parker's life was his uncle who owned and managed a small-scale organic farm in New Jersey. Parker spent a lot of time on the farm, so when it came time for him to decide what he wanted to do, he fused his memory of farming with his newly acquired preferences to do some "environmental good," and this resulted in wanting to become a farmer. Parker learned a lot of the techniques from his uncle that he later integrated into his own business.

He [my uncle] had a small plot that he filled up every year. He still is an organic grower. In the fall we would be bringing in compost, dressing the soils, putting in cover crops. It was a very bio intensive place; he did several crops in the same land in one season. That's where I got a lot of the stuff that I do... It was a way of life, I fell in love with the way of life, because you do something [different] every day. (Parker Interview #1)

Through working with his uncle, Parker began to understand soil ecosystems contribute to the available nutrients. He also learned the ecological benefits of a biologically diverse farm plot. Unlike Parker, Elizabeth's family did not farm. However, she, like Parker, wanted to do something good for the environment. Her grandmother supported Elizabeth by giving her the family pickle recipe. Elizabeth decided to commercially make and sell organic pickles.

[Five years ago]I started with my grandmother's pickle recipe, and then the pickle business. I wanted it to be organic, and I couldn't find organic cucumbers cheaply. So I started growing them, and then it just started blossoming from there. Along the lines of organic farming and trying to have a complete ecosystem, I didn't just want to grow cucumbers. I wanted to grow flowers to attract the bees to come pollinate my cucumbers. I wanted to grow herbs to



repel the cucumber beetles. Now I have a really diverse operation, that grows.  
(Elizabeth #1)

Through organically growing pickles, Elizabeth began to understand some of the ecological principles of farming and applying them to her farm. Later, at the time that I last interviewed Elizabeth, she was in the process of buying land. Her parents' financially supported her by co-signing for her purchase of the land she bought, "As a farmer, I did not have enough money to do it alone."

Richie did not speak of his family encouraging him to farm, but indirectly he learned how conventionally grown food can cause cancer, and he became a lifelong advocate for organically grown food to help people eat healthier. In separate conversations Richie spoke of how many of his family members had died of cancer. He provided organic food for his family, but he said they never learned from him.

Family played a role in all five of the participant's direction to begin farming, both indirectly and directly. In addition to family, friends and other community members played a large role in helping the participants acquire land, discovering growing food can become a business, and ultimately enact their preferences in the form of organically farming and immersing themselves into the community.

### *Friends*

Friends played a large role in the different participants' lives, either encouraging the participant to farm or providing land. Parker's friends encouraged him to immediately farm, rather than wait till he is older. They also helped him find land to grow food on. Ella's friends encouraged her to learn more about farming by traveling with her and starting businesses with her. Both Stephen's and Richie's friends introduced them to the idea that they could actually sell the surplus food they grew.

Elizabeth's friends helped her make a decision about a business career in organic pickles. Friends who offered her land to farm also supported Elizabeth.

During Parker's time at college, he learned more about environmental problems, and although at first he wanted to conduct scientific research, he became frustrated with academia. Parker wanted to "live the solution" to environmental problems rather than study them. He realized that organic farming provided a way to live the solution. Initially, Parker resolved that eventually he would organically farm, but that he would first make money conducting scientific research, save enough money, and then buy a farm. However, after receiving his degree in soil science, a close friendship he developed with a professor changed his perspective. The friend encouraged him to live out his dream immediately and "Find his own way to do conservation biology."

I always talked "Okay I am gonna get a job making lots of money doing soils science and then when I have enough money I am going to buy a farm and I am gonna be a farmer." But then I was like, "There has gotta be a better way because I am gonna be 60 years old before I can buy a farm," so I said, "Screw it." (Parker, #1)

Friends continued to play a role in Parker's journey to his own farming business. A few years after working on another farmer's farm, Parker's friend told him about a man who was looking for a willing farmer and steward to work his land. Parker was running his farming operation on this land and at the time of the interviews.

Ella's journey is well described in her vignette, where she traveled with a friend to New Zealand and organically farmed at many different farms, learning various techniques. Later, when she lived in different regions of the United States, she co-owned a few farming businesses with friends. Together, they found land and formed businesses.

Elizabeth came to the state to attend the local university for a master's degree in environmental economics, but like Parker, she became disillusioned with academia. She too wanted to do something more concrete to "save the world." Her friends helped her brainstorm the pickle business.

My friends and I were trying to dream up a land-based business so I could be outdoors and do something positive in the environment. That's when I started the idea of having a pickle business, an organic farming business... (Elizabeth #1)

After she decided to have a pickle business, another friend provided the land for Elizabeth to farm.

[My friend who had a hundred and some acres in Hampton Falls] proposed to me, "Come and live at the farm," for me to start my garden, my farm there." She was very generous. (Elizabeth, #1)

Like Parker and Elizabeth, Richie found his land through a friend as well. Only, Richie was able to buy his land because he had made money in antiques.

Some friends of mine owned [a house] and they said, "Hey, take care of the house while we are gone [in California]." When they came back, they knew I was looking for a piece of land, "You find any land yet?" I said "No." "We will sell you that piece across the street." They sold me this. (Richie #3)

Both Richie and Stephen had more land than they were used to growing food on, and therefore ended up growing too much food to eat or give away. Friends informed them they could sell their excess produce. This evolved into farming businesses for the two of them. Richie shared this experience:

I met a girl... who saw my garden and she said, "This is organic food, and there are people that want it, you could make some money." I really didn't believe her. I would just give food away, I would load up shopping bags and bring it to my friend's parents who were older and didn't have gardens and stuff and I would just give the food away. Every time I would go and visit my family, I would have a whole trunk full of food, and give everybody on the street the food.

... We [this girl and I] drove into town and went to the health food stores and they bought everything that was in the back of the truck and gave us a lot of money for it. I said "Jeez, you could actually make a living out of this if you did

it on a bigger scale.” ...I got certified in 92, so it is about 8 years, but I have gardened since that woman (a mentor) in 1968, so it is 32 years. It just has evolved into trying to make a living out of it; it is not easy with an acre and a half. (Richie, Interview #1)

Stephen’s experience was similar in that he had too much food to eat and friends told him he could sell food at farmer’s markets, and this evolved into a farming business. Friends played a large influence in the five participants’ lives in encouraging them to farm. Friends also included other farmers, who over time evolved into becoming friends through the common bond of being a farmer. Next I introduce the farming community: other farmers, the customers, and the government.

#### *Other farmers*

Other farmers taught the participants how to farm, about the farming way of life, and provided land for them to farm on. The organic farmers taught the participants about the ecological and social (economical and political) processes of the place. They also played a role in teaching the participants about the relationship they have with the place and the land. As the relationships evolved between the participant and the other farmers, they helped each other, taught each other, befriended one another, commiserated, and competed with each other. In this section, I discuss how other farmers introduced the participants to farming and/or mentored them and taught them more about how to farm and the way of life.

All five participants learned how to farm from other farmers, through mentoring, talking at Farmer’s Markets with one another, formal education from extension services, and/ or conferences and workshops. All but Elizabeth spoke specifically of mentors who taught them about growing food, farming, and the way of life. Elizabeth differed slightly in that she felt she did not have a mentor, but wished she had.

Parker came to the state with the desire to farm, but had no money and no land. He had attended agricultural school, but studied soil science, not agriculture. He had limited experience as a kid on his uncle's farm, but his uncle was his first mentor. His second mentor was a farmer he met when he first moved to the region. This farmer supported Parker to learn how to farm, all aspects, from growing to selling food.

I went around and looked at farms, and I basically was selling myself to the farmers there saying, "I don't want to be a farm laborer, I want to learn how to farm from you, and in return you are gonna get one committed person who is gonna be able to run things around you. You are gonna be happy." Gary Bolton took me up on it, gave me a half way decent pay, and amazing amounts of supports. Taught me a whole lot about doing it for a living, making a living, about the life that it is, how different things that he does to deal with it. That's how I got here (Parker #3).

... I farmed with them, and managed their farm for three years. The second year managing their farm, I started my own little project. My own project got so big that this year I can't work for them anymore.

[My own project] I started by leasing land from Stephen, which is really close [to Bolton's Farm]. I could go over there in my off hours. [That part of Stephen's] land got tied up in the divorce battle and eventually got sold to a bunch of developers. (Parker #1)

Parker learned how to farm in the seacoast area of New England, how to successfully grow food within the constraints of the seasons: when to plow, plant and harvest. During Parker's second year working for Bolton, Parker also leased land from Stephen to begin his own farming business. Stephen, another participant in my study, helped support young farmers by leasing them land in exchange for labor. While Parker leased land from Stephen, he learned how Stephen runs his farming business. Parker idolized Stephen for the way he approaches farming, and referred to him as another mentor.

Stephen's my idol as far as how he is focused, he gets a lot of work done, knows when to stop, knows when to just relax, take the time for himself. He's got it together man; he's got it all going on. When I get to that stage of my life I will be very very happy, he is completely my idol. (Parker, #1)

Like Parker, Stephen also was a mentor for Ella. Ella had also had many mentors before leasing land from Stephen for her own business and then eventually working for him to learn more from him. Her first mentors were the farmers she worked for in Australia and New Zealand, who she worked for in a farm exchange program. After Ella traveled and learned about organic farming, she attended agriculture school at Evergreen College in the Olympic Peninsula. There she learned more about organic farming and began a farming business with a friend. They learned from other farmers at farmers markets who took the time to teach them new information about their produce. Although Ella attended agricultural school, she believed that she learned the most about organic farming from being immersed in the farming community during her travels.

After she returned to the New England region, Ella and a friend eventually began their own organic farming business on land they leased from Stephen. Similar to Parker, she observed Stephen work and became inspired to learn more about the attitude of farming he embodied. She shared the sentiment with Parker of the importance of working with an “old-timer” in the organic farming community who seems to have the right attitude.

The right attitude to go with it. To not push yourself to the point of pure exhaustion, or to stress yourself out too much. I think that's real wide spread in farming, people push themselves to the outer limits, and then they're real stressed out. I want to do it for life, so I want to do it balanced. It's not something you do for money at all, really such a subsistence thing. It's the joy of being outside and being with the plants and out in nature, definitely not a money thing. (Ella, Interview #1)

Ella worked for Stephen at the time I was interviewed her. Stephen shared how he both teaches and learns from his crew about organic farming. He shared that Ella, specifically, had taught him about biodynamic farming and mulching. Stephen was also

new once, therefore he experienced mentors of his own. His grandfather, who was a dairy farmer, influenced his life in terms of the way of life of farming. However, Stephen felt he learned most about farming through the various jobs he had in high school.

Most of the jobs I had when I was in high school and college were on farms. I learned some things through those jobs; mostly how to operate equipment, not too much about planting. I did work on one vegetable farm, but I was probably 12 or 13 at the time, and so I hated it... It seemed like mostly what I did was either picking strawberries or picking beans. It just was really boring; not something you can do very well when you are that age. I never really considered growing vegetables for a living, I think ever until probably when I got back here. (Stephen, #1)

Stephen initially grew food conventionally. When he decided to farm for a living, he initially learned from the local university extension services and workshops, which was conventionally oriented. The community was geared toward conventionally grown agriculture at the time. After a few years of conventionally growing food, there was another farmer at farmers market who would weekly urge him to grow food organically. When the time was right, he sought out this man, and received advice on how to transition.

Richie's mentor was a woman who grew chemical-free food. Later he learned that she grew this food to heal herself of cancer. She taught him how to grow food without chemicals, and the importance of chemical free food. She also encouraged Richie to continue educating others.

When I was about 18, 19, something like that, a group of us went out to live in California. I met a woman who just knew her stuff. I started to go and visit her every single day and work for her. She would teach me how to grow carrots, lettuce, beets and all this stuff, which I knew nothing of how to grow.

One day I go up there, [and she is talking to men from the cancer society]. She was yelling and screaming "Just tell all your patients, that they are killing themselves," and she was pointing down to suburbia: Glendale,

California. There were the shopping centers and the streets and the homes, she said, "There is where your patients are getting the poison that is killing themselves. That is where their cancer is located, right there in the grocery stores. They go in them, they buy the food, they bring it home, they cook it up and they eat it and they get cancer and they die. Tell your patients to go home and grow food without dumping all these chemicals all over them that give you cancer."

[Later she told me], "Oh the damn cancer society, they always want to know how I cured myself... This was me last year, cancer was in my throat, my larynx, my chest, my breast everything. I was given 4-6 months to live. Here I am, a year a half later and I am totally cured of cancer ... I came here and I started to grow these vegetables without using the chemical fertilizers and the chemical pesticides."

That is when I started to realize that this woman had the secret of life. This really did something to me, at this age. She was gardening without chemicals.

Everywhere I lived ever since, I had a garden in the backyard. I would not get an apartment, house or trailer if I couldn't have a garden. Every time I had that garden I grew it without using any of these artificial synthetic fertilizers and pesticides and all of these things. (Richie, Interview #1)

Elizabeth, as mentioned, did not experience having a mentor in farming. She primarily learned how to farm from books and workshops conducted by other farmers. From here, she primarily learned by trial and error.

I just described how other farmers contributed to teaching and encouraging young farmers. Over time, the participants were immersed in the farming culture, through farmers markets, workshops, meetings, and membership. As a result, they developed friendships within the farming community. They continued to learn from one another and support one another. Some of the support came through mentoring and teaching, and other support came through commiserating and helping each other out when the going was rough. Next I share how farmers market served as their "workplace" where they could meet with other farmers to share knowledge, prices, experiences, hope, and grief. After I provide examples of how they helped one another out during difficult times.



As the farmers began to get more involved in their business and sell produce at market, they befriended one another, creating a support system. Elizabeth said going to market is like, "Meeting up with your co-workers." Stephen shared how at farmers market that is where he met the organic farmer who encouraged him to switch to organic farming. Ella mentioned that farmers market was a venue from which she could learn more about growing produce from more seasoned farmers. Richie shared stories about how he and other farmers educate one another about what practices they are implementing at market and how he does not see them otherwise. At market, Parker said he could commiserate with people who know how it feels to be a farmer.

Then there is the commiserating. Last week after market I was so angry, I was hanging out with a couple of other farmers and we just sat there and had a piss session. Talked about bad weather, bad customers, bad bugs, bad birds, and bad mammals, it was just complete narcissism, it's like nahh rarr. But if it sucked that bad we wouldn't really be doing it. Sometimes it just feels so good to bitch with the people you know, know exactly what you're talking about. (Parker #2)

The farmers met one another at farmers market and expanded their community as a result of spending every week chatting with one another in parking lots. The other way the farmers worked together was setting prices at market. Before the market would open for commerce, the farmers would scramble from one stand to another asking what each other how they set their prices. The farmers depended upon fair pricing, therefore collaboration and camaraderie was important. The farmers' community extended outside of the market, where they befriended one and other and supported one another.

One avenue of support between farmers was to help one another during difficult times. Parker shared a story about how he helped another farmer who had a broken leg and could not lay his plastic. Parker and his crew went over to the farmer's land and laid his plastic for him. A year later, the same farmer helped Parker when he was laid

up. This type of support also extended beyond the farmers who were “friends” but also out of empathy for “co-workers.” One morning at a larger farmer’s market, Parker showed up very late to set up his stand. Richie left his stand to actively help Parker set up his stand and get ready. Richie and Parker do not like one another personally or professionally, yet the support still existed between two members of the community.

The support from other farmers also emerged through the help of finding or providing land to farm. For example, Stephen helped young farmers by leasing them land and giving them an opportunity to begin their own businesses. Richie had helped Elizabeth out as she looked for land, by finding the land and helping with the negotiations.

The other farmers co-participated in the construction of knowledge about the local human and non-human community in the place. Their immersion into the farming community allowed the participants to feel the support and reciprocate the support. The farmers taught and supported one another. They also competed with one another for the attention of customers. Customers were a critical part of the farmer’s community, because without customers, there is no business.

### *Customers*

Customers are an integral part of the supportive community for farmers; without customer demand, there would be no farming business. The farmers depend upon customers, who are committed to buying locally grown vegetables, even if at times it can be more expensive than produce flown in from the large agricultural businesses in California that is sold at supermarkets. For Richie and Stephen, as they learned they

could sell their food, they began to grow food that the customers wanted, quickly changing the relationship into one that was mutually supportive.

The initial customer relationship differed for the other three participants, but it was always mutually supportive. This relationship is defined by the customer demand supporting the farmer, and the farmer supporting the customer's needs through developing a niche market, developing a personal-professional relationship with the customers, and through education. As a result, the customer and farmer come to depend upon one another.

All five farmers had a niche market. The niche market was developed by the farmer in an effort to attract customers and reduce the competition. Elizabeth owned a pickle business. Ella, grew herbs and flowers. Richie sold eggs. Parker and Stephen worked hard to have their produce at market earliest in the season. Parker grew corn to attract customers. Stephen ran a Community Supported Agriculture (CSA).

The niche market is a way to differentiate oneself from the other farmers.

Elizabeth shared how her pickle business attracts customers.

It's not really a pickle business, it is more of an organic farming business and the pickle is sort of my marketing plug, it distinguishes me from the other growers. I am never gonna make a lot of money on making pickles. But I may be able to make money organic farming for the flowers and vegetables that I sell along with the pickles. (Elizabeth, #1)

Parker grew greenhouse tomatoes to have early season tomatoes. He grew a wide variety of produce and always worked hard to figure out a time when he can have it available to customers when no one else has it yet. However, as much time and energy he puts into timing, he thinks it is really the corn that attracts customers.

I am a big garlic grower. Per square foot of garlic, which is my highest yielding crop as far as cash. I want people to buy as much garlic as possible, but people

don't stop at my farmstand for garlic, they're gonna stop for corn. Corn you make pennies on the ear. You're getting one, maybe two ears per stalk...But, if you don't have corn at a New England farmstand, good luck, they will blow you right back. They're like "no corn, I'm not stopping." Then your blueberries and your tomatoes and your lettuce and everything else that you grow and summer squash and stuff like that just sits there and nobody buys it. (Parker #1)

Stephen also spoke of the need to have a crop when no one else does, either earlier or later in the season. However, Stephen's major marketing plug is running a CSA. CSA's are an example of the mutually supportive relationship between the customer and the farmer. The money upfront supports the farmer to pay for initial costs, and in return the customer receives produce throughout the season. Because the customer is part of the farm, they are empowered to suggest the types of produce that are grown.

Along with having a niche market, developing personal-professional relationships through casual conversations with customers is necessary to maintain return customers. Through volunteering my own time at the farmer's market, I observed the farmers and customers sharing recipe's, how to grow different crops, recognizing one another week after week, inquiring about children, commenting how good the food is, and more. I noticed that both the farmer and the return customers loved to talk and connect, by watching their smiles and recognition of one another. Elizabeth, who is the newest at the Portsmouth farmer's market, spoke of how she began to develop a customer base.

You need to be able to retail your products at the market, you need to think about sort of think about what consumers want, who your customer is and what they might want. You start getting an excellent client base. In the first year, by the fourth or fifth week I started having the same woman coming back for flowers. I started recognizing she buys beans or she likes eggplant. It is kind of neat that way; you start to develop a sort of customer base.(Elizabeth #1 and 2)

After some time of being immersed in the organic farming community, all five participants felt that part of their relationships with customers also included a public service. The public service was education and providing locally grown food for people who could not grow it themselves.

Their educational goal was to promote small-scale farming, organic farming, sustainable agriculture, and living simply. All three wanted to forge connections between their customers and where their food came from. The three farmers wanted their customers and residents to learn about the local ecosystem and become aware of their interdependent relationship with it.

Richie shared how he believed that farmers market was the place where he could educate customers and passer-by shoppers about organic farming, chemical-free food, and the local ecosystem. He did this in various ways, but one way was through educational posters. The posters had diagrams that depicted how organic farming is ecologically sound.

Parker occasionally brought his produce to market straight out of the ground, uncleaned and uncut. He did this in an effort to educate people about where their food comes from.

People don't even know where their food comes from. I bring garlic to market on its stalk with its growing stem everything. I leave the dirt on the end of it, because they get a kick out of it, "What's this?" "That's garlic." "Really? Garlic grows underground?" "Yes maam." "What's this?" "That's the top." This year I brought onions with the greens in tact on top. "What's this, this is a huge scallion?" "Well, yea, that's why they call it an onion. Onions are big scallions, or scallions are small onions." (Parker, #3)

Parker was in the process of figuring out how to educate people to buy buggy corn, so that he can grow corn organically. At the time of the interviews, Parker grew

corn conventionally with synthetic pesticides and fertilizers to keep his corn bug free so that he could sell it. He claimed that some of the bugs that eat corn are only damaging to the tip, not the edible part. He depended upon his customers to learn about corn and “tip worms” so that he could grow corn organically.

Parker believes he contributes to the greater good by helping customers who can’t grow their own food due to their ways of life but who want to be involved in small local agriculture. His choice to organically farm most of his produce affects “Possibly thousands of people who don’t even know it, I am an instant effect for change.” He believes that when people buy food from him, it is not only organically grown, but also “handcrafted,” instead of “mass corporate organic farming.”

This helps people, because it gives them hope, because they can’t do it themselves. They are too busy, but they can be actively involved by it through making an economic decision to support this. (Parker, in personal communication, September 10, 2001)

Elizabeth shared the same sentiment with Parker, that by growing locally grown food, she was providing a service for people who were ecologically minded but did not have the time to grow their own food. Stephen believed that forging connections between people and where their food comes from had become a driving force in his commitment to the organic farming business. He shared how the CSA began as a marketing plug, but evolved to entail his personal values and ethics.

On one level, it’s [the CSA] an alternative way of marketing crops in that you make contact with a group of people to grow their food for them. But, to me, what’s more important is providing a way for people to be more directly connected to where their food comes from... It seems like trying to forge that connection between people and where their food is growing is beginning to seem like that’s a fairly important piece of what I am doing. I didn’t go into it that way; I started as an alternative marketing scheme. The opportunity to make that connection became obvious, and now that is pretty important. (Stephen #1)

... I think its important for the future of, maybe not organic farming per se, but maybe organic farming as its most generally practiced now, which is pretty much on small family farms. It seems like the health of agriculture is pretty directly related to the quality of living in the community in general. I think a lot of people choose to live here because they perceive the open spaces that are created by agriculture as being beneficial to their quality of life.

The only way that agriculture is going to remain viable is if it has the support of the local community. And the best way to show that support is to support it financially by buying products that are produced locally. But I think a lot of people find that hard to do, because their lifestyle is so hectic that they can't, or they don't want to take the time to seek out local sources of local products. The CSA is a way of maybe making it easier for people to make those connections.

It's an opportunity to educate the CSA members in some of the issues facing small-scale agriculture. Sometimes it could be pressure from zoning regulations, that make it difficult to have signage at the side of the road, that there is a farm in a particular place and what it offers for sale.

I think a lot of times people don't realize the effect the weather has. They see the effect it has on their lives, if they have a lawn that is turning brown because it hasn't rained in awhile. Unless they are more directly connected to where their food is coming from, they go to the grocery store; there is all this food there. I think, it is important for them to really understand what it means when it doesn't rain. Or when it rains too much, often that's worse. (Stephen #2)

In Stephen's example, he invited his customers to become involved in the farming. Ella contributed to the success of the CSA by working on Stephen's farm. Through the CSA, she believes she helps the customers by providing a place to build community. She shared how the CSA had a fall farm dance, where the members would come and have a good time, building that sense of being part of the farm.

The participants believe that everyone should realize how closely related we are to where our food comes from, and how this extends to a relationship with the non-human community: the physical attributes, the weather, the natural occurrences. The customer relationship is mutually supportive, where the farmer works hard on the land to produce the food for the customers. It is a relationship that is based upon support,

dependence, and education. The relationship allows the farmer and customer to increase his or her sense of belonging in the community.

The human community encouraged the farmers to begin farming, they taught the farmers how to farm, and about the farming way of life and the associated attitude. They befriended one another and supported one another. The friends, family, other farmers and customers also financially supported the farmers. These people all contributed to the development of the farmers' sense of place, by introducing them to the place and organic farming. These actions helped the participants develop place attachment, ecological knowledge, and ecological identity. Next I introduce the non-human community, who also contributed to the development of the participants' sense of place.

The five participants experienced support from the non-human community, which includes the land and the other inhabitants of their land. Other aspects of the place that also contributed to the farmers' encouragement to farm included physical attributes of the place such as seasons and weather. Through immersion with the non-human community, the participants began to know the land more intimately, ecologically, historically, and culturally. First I describe how the participants related to the land they acquired and worked, then how organic practices require ecological knowledge of land, and last how the participants faced the challenges of being dependent upon natural occurrences such as seasons, weather, pests and weeds. Through these interactions, the participants developed place attachment, ecological knowledge, and ecological identity, contributing to their sense of place



*The Land: Acquiring It, Developing a Relationship with It, and Possibly Losing It.*

Although humans play a role in land acquisition, the relationship with the land is with the non-human community: the physical land and its' inhabitants. At the time of the interviews, land acquisition had become increasingly difficult, due to economic growth in the region that led to an increase in housing needs. Richie said during his second interview, "Housing developments are the last use of the land...There are no housing developments being torn down for farms." In the profession of growing food, land acquisition is essential. Once the participant acquired land, he or she organically farmed the land and developed a relationship with the land. In this section I portray the participants' history with their land, from acquisition to relationship. This relationship strengthened their place attachment.

The five participants acquired land differently, as mentioned earlier, through friends or family. Four of the five participants (Parker, Elizabeth, Ella, and Richie) had depended upon leased land at some point in their farming career. The exchange of land for labor is common to see among new farmers. Many people who desire the farming career, but did not inherit farmland, can't make enough money farming to buy land. Stephen was the only participant who owned all of his farmland, which he inherited from the beginning.

At the time of the interviews, Ella was no longer leasing land from Stephen, but working for him. Elizabeth and Parker were actively leasing land for their entire farm. Richie owned one and a half-acre cultivated plot, but also leased land from neighbors who have land in order to grow more food. The people who lease their land to farmers

actively support the participant's to enact their values. Parker expressed his gratitude for the millionaire landowner who leased him the land he farmed.

If it wasn't for someone like [the man who provided the land to lease], I probably wouldn't be able to have enough of a farm to be a farmer. There is this threshold to get into farming, without land, cause I am one of the are people that is looking to get into farming that doesn't come from a farming family in an area with land. Without that, to make the initial purchases, it's very prohibitive to.(Parker, Interview #1)

Ella also shared her gratitude for Stephen's generosity with his land.

We [Stephen and I] have worked together for the last three years as we have had stuff across the street. We've [her business partner and herself] traded labor for the land. Which is a nice set up for young farmers. Give him some labor on his farm, which keeps his employment costs down, and gives us somewhere to plant our stuff. (Ella Interview # 1)

Elizabeth and Richie also shared their appreciation for the ability to lease land to farm. Leasing situations are set up on a barter system, which lets the farmer begin to farm, in exchange of hard labor, maintenance, and food. The care for the land is more intense for the organic farmer than a conventional farmer because they expend a lot of energy building the soil into a healthy substrate. In order to add the correct amendments to build the soil, the farmer must know what the specific soil of different parts of his or her land needs, which requires careful knowledge. In addition, the farmer pays attention to how the water flows through the different parts of the property, which informs the farmer how to plow the land to decrease land erosion and nutrient waste. As a result of this careful attention, the farmer experienced positive results in his or her produce and decreased weeds and invasive bugs. The farmer became increasingly aware of his or her relationship with the land.

All five participants agreed that getting to know land takes time to truly get to know the place. Stephen spoke of knowing the land he grew up on, and deepening his

knowledge through farming it. Parker spoke of how much time it takes to get to know the land and how he would like to become a part of the land. Ella spoke of how her five years working at Stephen's farm, she has deepened her connection to the place and that she has a deep love for the land and the farm as a whole. Elizabeth shared how close she had become to the land she worked and that losing the land to development is like losing a friend. Although Parker, Elizabeth, and Ella are capable of knowing the land they lease, they all spoke of their desire to own a piece of land and get to know it without fear of losing it.

Stephen spoke of this knowing of the land because he owned and managed his family's farm that has been in his family for generations.

It takes a long time to get to know a piece of land intimately. Having grown up here, I had all that knowledge to begin with, even though it wasn't the kind of knowledge I have gotten since I started farming. Each field is really almost like an ecosystem in itself. There are parts of fields that are different from other parts of fields, sort of the sense of the farm as a whole. [I know] where the wet areas in the fields are that you need to stay away from and all of that. I knew all that before I started, just because I spent so much time here. But that would be the kind of thing that would be exciting on a new piece of land is learning all that. (Stephen, Interview #3)

Parker spoke of having a sense of place on the land he is currently leasing. He intended to buy this land and deepen his relationship over time with both the land and its' inhabitants.

The ultimate goal has been, you know the place so well, that somehow, in all of that, you all of a sudden become a part of it. You are the place, its not a place that you go, you are an integral part of the landscape. You are the place. When in order to explore this place, Parker is in the definition of this place because basically you are part of the landscape. So, to really know a place is a really big task. (Parker, #3)

At the time of the interviews, both Ella and Elizabeth were working land that was not theirs and that they did not intend on purchasing. The two of them still became

connected to the land, as a result of being there over time and working with the land.

Ella expressed how time contributed to her relationship with the land.

I am very connected to this place [Stephen's farm] because of all the time I have spent here. I have been growing in this greenhouse and on this land for five and a half years. The nature of this place, just knowing that it has been farmed for generations and the feel of it around here. It is not the perfect prim and proper farmhouse sort of scene. There is a few things falling into disrepair, it's pretty holistic. There's so many different planting of things, and a lot of conservation land, that it just feels real whole, even though it's in the middle of suburbia hell. (Ella, Interview #1)

When Elizabeth was offered to farm her friend's land, she knew that the land was going to be sold eventually because it was family land that was co-owned by feuding siblings. However, she allowed herself to connect with the place. At the time of the interviews, Elizabeth had lost her land and was looking for new land to farm.

I really love that land in Hampton Falls, I have spend so much of my time, so much of my life there and life energy there in Hampton Falls. I carved out this acre and a half plot...I have done tons of things [for the soil]. I have grown a number of organic amendmets in there, primarily things that are long term.

...The property that I am on has been farmed for hundreds of years. Hundreds of years of cow manure being spread on the land, and things being turned under, the soil is really nice. There was already a high productivity in that soil and I've only just added to it.

In a way I connected to it, I have a sense of the place, but it wasn't a sense of ownership. I always knew it was temporary, we didn't know how temporary it was... It was and has been our piece of land to take care of...a sense of stewardship. ...I am losing this friend [the land]in Hampton Falls. Hopefully we will be getting to know a new friend. Part of my sense of place is knowing one place intimately. (Elizabeth #3)

Elizabeth believes that by knowing the land ecologically and historically, this helps her appropriately prepare the soil, which is among the main goals and objectives of organic practices. Elizabeth believes that because she knew that her land was historically a cow farm, she then knew what the soil fertility was, indicating what the soil needed.

Land that is not owned by the farmer always runs the risk of being lost, either to development or economic constraints. The loss of land can be devastating to organic farmers. Although the participants organically farm because of their values, they would like to reap the benefits of their hard labor. At the time of the interviews, Parker, Ella, and Elizabeth leased land that they either lost recently, or they feared losing.

Parker expressed his tenuous feelings about not owning the land he farmed.

Although I am rather secure in my situation, [there is still] the fact I don't believe that it will be pulled out from underneath me unless I own it. I guess in a utopian type of way, I should just do it because that's the right way to do it. But [what if] they're like we don't want you to farm over here anymore? You got years of investment into a place to make the soil what you want, the way you cultivate just so that you can keep weed suppression down.

In organic, its so important really be on top of your cultivating practices, so that weeds are not dominant, whereas the conventional grower would just go out and just spray in and be done. In the way that we manage land with cover crops and investing time in seeding, and dealing with cover crop management, crop rotations. The amount of compost that we move onto fields, the amount of work that we put into the place, but we don't own it. (Parker #1)

The land Ella leased from Stephen was eventually lost to development through a divorce settlement between Stephen and his ex-wife, demonstrating owned land can be lost too. Ella lamented all of the land that she had lost over the years.

I really love it out there [on Stephen's land that he leased to me], just to walk around in the outer fields, and walk down by the river. It's so beautiful. Its part of why I can't really fully imagine how bad it feels for Stephen and his brother to be losing that piece of land, because they've grown up there. Its so beautiful, just knowing it for a few years, that's me saying, "I can feel it." Then to imagine how much it feels to them, its just rough, I can't really (Ella, Interview #3)

Like Parker, Ella and Elizabeth yearned to own their own land so that they could feel secure with it and begin to sink their roots into a place. At the time of the interview, Ella shared with me how much she would like to have land of her own to get to know and to understand.

Elizabeth felt the pain of losing her land but looked forward to owning her own piece of land, which she did purchase at the time of our second interview.

It's gonna be hard for me [to leave]. It's incredibly painful. We've known it on an intellectual level since April and all summer. Its never gonna be a farm again and it has been for so long. Its such beautiful land, its gorgeous, its beautiful on an aesthetic level, and its beautiful in an agronomic sense.

... I want to set down and start working soil and work it for forty years. Get to know it intimately, know what lives off of it, beside myself. Watch the seasons pass. Now I have a sense of place, as far as your connection with people and community. I just don't have the actual physical location.

It [land and place] needs to be permanent for me, because of the whole divorcing yourself from the land. We are having a forced separation from this land, has been painful emotional, spiritual, and physical. We are looking for something that will offer us a permanent solution so that ten years down the line we can reap what we have sown in the year 2000. (Elizabeth #3)

The five participants acquired land, whether through inheriting, buying or leasing. No matter how they acquired it, they still developed an intimate relationship with the land, strengthening their place attachment. This relationship, as with all the relationships with the community, are temporal, they deepen over time. Over time, as they work the land, they experienced a reciprocal relationship with the land, where when they applied increased attention to the land's specific nuances, the land responded with an increased crop. They can only pay this close attention, if they get to know the land over time and observe its' responses to different treatments.

The five participants shared how organic farming practices require an ecological understanding of the land and soil. Next I discuss their ecological knowledge of the land, as well as the evolution of their ecological identity within the context of their interdependent relationship with the non-human community.

### ***The Land: Organic Practices Require Ecological Knowledge of the Land***

Over time, as the participants continued to organically farm, they learned more about the practice and the mission of the practice. Organic farming is based on a goal for sustainable production of food. Sustainable agriculture means returning to the earth the same that was taken out of it, in order to be able to produce food for future generations. The goal of organic farming is to maintain the local ecosystem as best as possible while using it as a resource for humans. The five participants shared how their understanding of the basic principles of organic farming: building soil without using synthetic fertilizers, herbicides or pesticides deepened their ecological knowledge.

Building soil means treating the soil as an organism itself, maintaining high levels of nutrients, by crop rotations, winter cropping with rye, and feeding it with compost. Healthy soil has a high level of microorganisms in the soil to create a healthy substrate in which to grow food. Strong soil management can suppress pests and weeds. Building soil includes feeding the earth with compost, winter crops, and other amendments to build a healthy substrate. The five participants demonstrated their ecological knowledge as a result of organic farming. Organic farming practices demand that a person understand why soil is important and how to work with the local ecosystem.

Stephen's farm began as a conventional farm. In 1990 he transitioned to an organic operation. As a result of this transition, he had vastly seen improvements on his farm.

I actually started as a conventional grower. Certainly since transitioning to organic I have been really pleased with how well things have gone, both in the cropping and my attitude about farming, its so much better. It feels right. It

would be a hard job to do if you didn't feel like you were doing the right thing; too little money involved, too much time.

...The real difference is philosophical. Its more how one treats the soil, and how one treats the farm, as a unit, not just something to grow plants in... Having stopped using chemical fertilizers and using composts and trying to provide the conditions to allow the bacteria to thrive, I have really seen the soil conditions improve incredibly (Stephen, #1).

...To be truly sustainable, you need to be producing as much soil fertility on the farm as is possible... The organic philosophy is you don't worry particularly what a given plant needs to grow, your concern is what the soil needs. Anything you would do to the soil is because the soil itself needed it, not necessarily what crop you are going to grow. The organic philosophy is that you encourage healthy soil, and the conventional philosophy would be that you don't worry about the soil other than what you need to put into the soil to produce a specific crop. (Stephen #3)

Stephen has transitioned completely to farming organically. Parker agreed with how organic farming makes more sense.

I want to be an organic farmer because I believe it's a much more sustainable way to do agriculture. I believe in the philosophy of feeding the soil... I think from an ecological perspective that if you farm with a system instead of against the system, you're doing something more logical.

...Organic farmers import all kinds of organic matter, because every time you take something off a plant, that represents a value, and that value came from somewhere. A certain amount of it came from the sunlight, but the rest of it came from the soil... Which means you have to put something back. Organic farmers are always looking at what they are gonna put back in the soil.

The conventional way says just give the plant what it needs. First of all we are not that smart, we don't even know what the plant needs, but lets say we are. There is a whole world in the soil. [In the conventional way] you just give the plant what you think it needs, the rest of the soil is dying.

Life begets life... If you could just nurture good soil... you can grow really great vegetables and you can be encouraging a natural process to happen. Basically be fighting less. When you start relying on chemicals, it's a downward spiral... You are strip mining your soil, and so then you are having to constantly compensate for that. All of a sudden you have more pests pressure... [and] you have more insect damage, and you get more fungal disease, then you have to spray for this and spray for that. (Parker #3)

All five participants agreed that organic farming makes ecological sense because it feeds the soil, and returns to the earth what was taken away. The five participants



work to preserve the integrity of the basic ecosystem on their farm while sustainably producing food. Crop rotation is one method that organic farmers use to build soil.

One of the other things you try to do is rotate your crop so that you might have a heavy feed like corn or broccoli, something that really sucks the nutrients out of the soil. Then the next year you will try to put in something like peas or beans [legumes] which feeds the soil; they've got nitrogen-fixing nodules down in their roots. You're always trying to switch things around. (Ella, #2)

Soil building and not using chemicals are basic goals of organic farming. In order to organically farm, the participants must develop an ecological knowledge of the land and place, in order to successfully achieve the goal of long term sustainable agriculture. Their commitment to the organic farming practices and the associated way of life contributes to the participants' commitment to developing an ever-deeper relationship with the land. The primary focus has been on the land and its soil ecology. In addition to the soil, the participants co-constructed knowledge with other inhabitants of the land, weeds and pests. In addition, they learned how to organically farm in New England seasons and weather patterns. Next I introduce how the participants worked with the natural occurrence of seasons, weather and other organisms.

#### *Seasons, Weather, and Interactions with Other Organisms*

Natural occurrences such as seasons, weather, and interactions with other organisms that live on the land impact one's farming business. First, their lives are dictated by the seasons, especially in New England where the season changes are drastic and extreme. Secondly, weather is a determining factor on what they can and cannot do. Third, weeds and pests effect what they can do in a given day and how they will go about it.

All five participants shared how the seasons affect their lives. The four seasons of New England are what initially attracted Ella, Parker, Elizabeth and Stephen to the area. In the coastal area of New England, each season determines their day-to-day life. Although Northern New England has a short growing season, which might not be hospitable to farmers, the farmers adapt their farming schedule appropriately.

In the winter, the five participants planned for the upcoming season, they ordered seeds and planned crop rotations for both building the soil and for pest and weed suppression. The winter is also spent on paper work for maintaining certification. During the winter, seeds were planted in the greenhouses in order to have substantial plugs to transplant into the fields during the spring. As spring approaches and snowmelts, the farmers begin to plow their fields and prepare the soil for seeding and transplanting. This is a busy time of year for all five of the farmers. Summer consists of planting, cultivating, weeding, harvesting, and selling produce. Fall is similar to summer, just less produce and a need to prepare for winter and the next growing season. They fix equipment, plant winter crops for green manure, (another soil amendment), mow fields, order seeds, and plan for their upcoming season.

No matter how well they plan, their success is equally dependent upon the weather. Weather dictates this year's success or failure. Next I present examples from Stephen, Elizabeth, and Parker who shared how their lives are dependent upon the weather.

Every day is different to some extent. I try and spend an hour or so in the morning doing paper work, and thinking about the day. I try to figure out what things we want to try and accomplish... A lot of what we do is so weather dependent that I really can't make a final decision until, not even in the morning, often it is just last minute decisions. (Stephen #2)

The weather associated with the different seasons largely determines their operation. During the spring I interviewed the farmers, it was cold and rainy, therefore all five were late in plowing and planting. Spring can be fairly stressful; particularly springs like this when the weather has been cold and rainy. It delays getting crops planted. For a lot of things it isn't too critical, it just means that harvest will be delayed. But for some things, like pumpkins and winter squash and some flowers, they take the whole hundred and twenty day growing season to produce a crop. If planting gets delayed too much, they just won't make it. Some of that is where we are at now. I'm having to make decisions about what not to plant, because there isn't time to get everything done soon enough. And because it's been cold and wet, there are some fields that I still can't get on with the equipment because they are too wet. (Stephen #2)

That year, because of both the cold and wet spring and summer, many crops never produced viable produce to sell. For example, that season all the farmers experienced a blight that killed all their tomatoes. The blight was caused by the wetness. In addition, because cucumbers require warm soil, they grew very slowly. This affected Elizabeth's pickle business, so much that the next year she did not have product to sell at farmer's markets.

Parker also referred to how detrimental too much rain can be. On my first interview with him, I met him in the greenhouse. The rain was pouring down and his worker came in to ask how he was. Parker quickly responded, "How about like shit?" He continued yelling for a few minutes about how much rain had poured throughout the night and how there was almost nothing to do because the land was too wet to work.

Natural occurrences, such as too much rain, or lack of, often cannot be controlled. Other natural occurrences affected the participant's livelihood, such as weeds and pests. Weeds and pests can be controlled to a certain extent. This type of manipulation is not always in a relationship with the ecological processes of the place.

However, the organic farmers must come to understand how these pests survive, how they eat, and how to control them, in order to have a viable crop.

Weeds and pests can wipe out crops if not carefully managed for and monitored. Because organic practices do not use synthetic sprays, weed and pest management is extremely labor intensive. Although there are organic pesticides and herbicides used, other pest management techniques are utilized. For weeds, primarily the farmer's weed, mulch, and cultivate.

There are two general types of pests that were discussed, bugs and mammals. For insects, the techniques used include: killing eggs, larvae, bugs and worms by hand picking them; crop rotations; building soil; and encouraging beneficial insects to live in their fields. Richie described how this could be time and labor intensive.

They [cucumber beetles] will come in and wipe you right out. I remember one day we planted 200 mounds of squash over in Lee... I spotted a cucumber beetle, which meant that they were now at the stage where they were flying around to do damage. I went around to the next plant, and there was a cucumber beetle on it, and I went to the next plant, another cucumber beetle.

I said, "That's it, my crop is infested with it, and it is Friday. I have a big farmers market to do tomorrow, and I won't be able to come back here till Sunday. When I come back Sunday, this entire crop will be destroyed so we have to drop everything." We hand shook each plant which causes the cucumber beetle to fly away for a second. Then cover it with the cheesecloth. Then I put a little dab of tenacious earth powder on it. We put sticks and rocks around the cheesecloth to cover it.

That mound of squash was saved, and then we have to go do it to the next one, and then the next one, we had to do it to 200 mounds. You want to talk about work, work, we saved a crop! What a crop it was because in the end it I was getting two to three hundred pounds of squash a day out of that crop, a day! (Richie #1)

Crop rotations are another technique organic farmers are required to use. Ella shared how these techniques suppress weeds and bugs.

You have a lot less pest problems that way [using crop rotations] too because potato beetles in one field don't generally find their way to the potato field when you move it the next year all the way a half a mile away. (Ella #2)

Ella spoke of using beneficial insects as another technique to suppress insects.

We were up in Prince Edward Island, where they grow thousands and thousands and tons of potatoes. There they use, not only an insecticide for the potato beetles, but then they use an herbicide and kill all the plants when their done, so that the vines don't tangle up their machines when they harvest them.

It seems so short sighted, to drench the soil with something that... what about the next year? People are so profit driven... This level of detachment from reality is disturbing. I just can't do it; I can't see the use in it the logic or anything. I am just doing what little bit I can in my own world, to counter it, to increase the bio diversity and increase the amounts of bugs. If you leave your bugs alone, those beneficials are gonna come in and catch them. They come flying in and eat them up. You're gonna increase your amount of beneficials.

If you spray them, you might accidentally spray some of those beneficials too, and they sure as hell are not gonna come back. There's so much to be gained from letting pests have a little bit of what you got, spread the wealth. If it gets to the point where you are gonna lose your shirt, try to come up with a solution or do it before that if you need to. But this systemic thing is just really sick. (Ella #2)

The five participants managed mammals slightly differently from one another.

Richie uses his springier spaniels to keep other mammals out of the land. Stephen and Ella use deer fences provided by the state. Elizabeth and Parker spoke of shooting the mammals, primarily woodchucks. The participants shared how farming is not natural and that they do have to manipulate the ecosystem to effectively grow produce.

Although it went against Elizabeth's ecological ethic, she had to compromise her ethic for economics and shoot the woodchucks that were decimating her crop.

[Shooting woodchucks on the land] felt like something we had to do. We were having problems with woodchucks because we hadn't shot or trapped any in the year previous. I stepped out of the whole ecosystem thinking and thought more as a businessperson, trying to make a living off of this. They had destroyed a couple of hundred dollars worth of crops, and a potential of many of hundreds of dollars down the line. We thinned out the herd and didn't have any more troubles with the groundhogs. (Elizabeth #3)

Parker also shot woodchucks. He did not seem to feel ethically bad about it so much as spiritually oriented.

I hate woodchucks. But whenever I kill anything, even a woodchuck, I always promise myself that I would never blindly kill anything... Whenever I have my gun pointed at something that I intend to kill, I remind myself, just before I pull the trigger, I say, "You are about to take something's life away." That affects ya. (Parker, #3)

Managing weeded and pests can sometimes go against the ecological grain of organic farming, where they are manipulating the land to produce their product.

Although at times the participants felt ethically challenged, they also wanted to make a living at farming, creating a discourse between their environmental ethics and their need for financial gains. Three of the farmers discussed how although they farm with the mission to maintain the ecological integrity of the place, they also acknowledge that organic farming is not natural.

First of all, farming is against the grain of nature. There is nothing natural about farming, as soon as we stopped hunting and gathering, we had to farm. As soon as we had to farm, we put ourselves at battle against nature. Organic farmers and conventional farmers commit genocide on a daily basis. You go out and weed, you are selecting for one species, and all those other species that are trying to grow in god's earth we are killing.

This romantic vision about organic farmers somehow farming with the earth I think is a whole lot of nonsense, because we just chose a different management system. Farming has nothing to do with farming with the earth; the earth doesn't want to be farmed. The natural progression of old field succession, farming is against that. We have to plow; we have to till. (Parker, #3)

Richie and Elizabeth, agreed with Parker that farming is not natural. Although organic farming tries to promote sustainable agriculture and work within the limits of the natural world, with careful attention to the local ecosystem, farmers also need to manipulate the environment. It still holds true that the participants kept their manipulation to a minimum. They worked hard to work with the land, rather than

against it, by building soil, paying attention to what the land informs them of where to plow. However, when they managed pests and weeds, they worked against the local ecosystem, to avoid extensive damage to their crop. Elizabeth agrees that farming is not natural and that she has to do things that are not in synch with the local ecosystem in order to have a farming business.

[Deer and groundhogs are] just part of the whole food chain. They are part of a full ecological system. Mammals and even the bugs are part of the whole system. We try not to disrupt it too much. Growing food like this is artificial, it's mans placing demands and manipulating the environment to get what he wants, which is food. Our aim is to do it with the least amount of impact, on the normal state, the status quo of the environment, it's sustainability.(Elizabeth #3)

Richie also stated that organic farming is not always natural. He believes in organic food production, to farm compatibly with the local ecosystem, but he acknowledges that he still manipulates the earth to meet his needs.

We have got to realize we gotta take care of the earth, we have got to keep putting back into the earth, because we are taking out of it. All this farmland you see that's out there, these are artificial mediums set up to grow food. We are artificially growing food out here. A carrot is not gonna grow by it'self out there in the woods somewhere. A tomato plant, these things are not from here, they are from other places, and they are food sources. In order to grow these foods, we have to artificially create an environment for them to grow in. (Richie, #1)

Farming may embody some unnatural practices to grow specific produce, but generally, the lives of the farmers are very closely linked to the natural occurrences of the place they live. The participants all shared the ways in which organic farming contributed to their place attachment to the land, to their ecological knowledge of the place, and their ecological identity within their relationship with the non-human community. The enmeshment with the non-human community, the land and it's inhabitants, as well as natural occurrences, taught the participants of their inextricable interdependence with the natural world, which began to define who they were.

The farmers believe that they have a relationship with both the human and non-human community. The belief that they have a relationship with the natural world is spirituality embedded. In addition, spirituality in a farmer's life is somewhat necessary, coming in the form of appreciation, reverence, and faith.

### *Spirituality*

The farmers felt spiritually oriented to their profession in two ways. First, the farmers felt their relationship with the land, as though it was a relationship with a person, which demonstrated an ability to think of the land metaphorically, which is prevalent in other culture's spiritual perceptions of the non-human world. Secondly the participants discussed how farming requires faith. Farmer's success depends upon the inhabitants of the land and natural occurrences such as weather and pests. Because weather and pests can be out of the farmer's control, the farmer needs to have faith. Faith is linked to spirituality in that the participants believe in a power greater than themselves, (i.e. weather and seasons), and know they have to have faith that if it is meant to be it will be. In essence, the participants let go of some of their "control" and have faith in a power greater than themselves.

Spirituality was implicitly referred to in all five participants' lives and then explicitly referred to by Parker, Elizabeth, and Ella. Richie and Stephen spoke implicitly of being spiritual in that they felt both felt they were put on this earth to farm. Stephen also shared his metaphysical beliefs about farming, based in biodynamic practices. In addition, Stephen modeled a very simple approach to how he thinks about farming, which is filled with faith. Although he did not speak of it explicitly, both Ella and



Parker referred to his attitude of one that is based in faith. They both said, 'Stephen maintains a 'Zen' attitude of farming.'

Parker explicitly shared some of his spiritual beliefs in how he has reverence for all living beings, and when he takes the life of a woodchuck, not matter how much he hates them, he feels something inside. In addition, he explicitly shared some of his spiritual beliefs.

I talk to god every day. This is one of the only occupations where god talks back; you just have to listen. God has a will for you. If you're being pushed in a certain direction and you want to do it this way but you keep being pushed in a certain direction, don't be a bull and do it your way, that's God talking to you, heads up. I mean you are being pushed this way for a reason. Maybe God, nature, whatever people want to call it, I always say, "There's God talking to me. He doesn't want me to do this."

...It's hard not to be spiritual or religious about it. I don't know so many people who do it for a living who aren't at all. I know we do a lot of other things, but it comes down to the simple thing: you put a seed in the ground and it grows. We talk about the miracle of birth and the way people feel about childbirth and it's like a magical experience. There it is and you get to see it every day... your job is basically to leave the plant alone, let it grow and not let anything kill it. (Parker, #3)

Ella spoke of her own connection with the earth and how working with the earth requires a more faithful, as she calls in, "Zen" attitude. Having faith required the farmer to relinquish some control and maintain a faith that it will all work out.

I think I can tend to be an up and down sort of person emotionally sometimes. Working with the earth and working in a way that I don't even know if I can describe it, the earth is always there. It's not gonna run away on you.

I think one of the biggest things I have learned from Stephen is how to let some thing's go. It doesn't all have to be done right this minute. The more you stress out about it, the less fun it is. Might as well take it one thing at a time. That is the Zen thing that I am trying to get with. Just take one thing at a time. (Ella, #1)

Elizabeth spoke of how she views farming as spiritually cleansing for her.

Not only is it [farming] pleasant, it definitely makes me feel that I am more in touch with the heartbeat of the world, and of the universe. By getting in tune

with it, by getting my hands dirty, getting myself dirty, working a sweat, lifting rocks, and planting seeds, and watering things. The whole, yea sort of Gaia, biosphere, yea. It's right here in this little microcosm of an acre and a half and I am playing in it.

It is where I like to be, it's almost going to church, or communing. Recently I haven't been able to get to the farm that often and it's really felt bad. I feel like I really want to go and almost like going to confession, I want to go and purge myself of all this driving around, shuffling papers, working on computer stuff. Just go think like a farmer, which is always thinking about the plants and the soil, primarily the soil. (Elizabeth, #3)

This spiritual way of viewing farming helps the participant's continue farming, because it contributed to the participants' sense that they were being supported. The farmers experienced their friends, family, other farmers, customers, the land, and it's inhabitants support to enact their preferences through organic farming. Through organic farming, the participants developed and sustained a sense of place: increased place attachment and ecological knowledge, which led to ecological identity. The participants' public involvement was associated with their developed sense of place, but more directly was linked to the support that they felt.

Organic farming transformed into a way of life for these five people. The social context in which they developed their ecological knowledge and ecological identity evolved into a deeper commitment to reciprocate the support they felt, where they gave back to the local human and non-human community through their ethical considerations and actions. They became increasingly publicly involved as a result of feeling obligated to reciprocate the support they felt and contribute to positive social change.

### *From Sense of Place to Environmental Ethics*

The social context where the participant was situated facilitated the development of sense of place and begins to explain the link between sense of place and environmentally responsible behavior. As a result of feeling supported, they immersed

into the human and non-human community and developed a sense of place (place attachment, ecological knowledge, ecological identity, and public involvement). Out of a felt obligation and desire to reciprocate the support and care back to the community, the participants developed a commitment to the way of life and to public involvement for the betterment of the community. Their spiritual relationship with the practice and the place extended their obligations from the human community toward the non-human community. This felt obligation and commitment could be considered an ethic toward the place.

Their commitment to the human and non-human community included sustainable agriculture, meeting the needs of their customers, education, and in some cases, political involvement. These aspects of public involvement begin to encompass environmentally responsible behavior. As stated in Chapter One, I define this as being ecologically sustainable behavior, encompassing active citizenship. Therefore, the social context in which sense of place was developed helped shape the participants' social ethic and environmentally responsible behavior.

In this section I describe the participants' commitment to the organic way of life and their public involvement in the community. Their way of life demonstrates the sacrifices the participants made in order to organically farm for a living. The willingness to sacrifice money and time, two commodities ordinarily highly valued in Western Culture, exemplified the participants' commitment to organic farming and their community. Their public involvement demonstrates the participants' evolution of ecological and citizenship values and behaviors. Their ways of life and public

involvement intermesh because the participants saw part of their lifework as organic farmers as making positive change for the community through public involvement.

### *Farming Way of Life*

The combination of initial preferences and the support of the seacoast area human and non-human communities led the participant to enact their preferences as organic farmers. The life of an organic farmer is more than a job but a way of life, which is best described as Berry, (1977) called it, “A seamless life.” The way of life is defined by their dependence on natural occurrences (already discussed in the sense of place section), low income, and hard work. The challenges help demonstrate their commitment to the way of life, which includes making positive social and ecological change.

The participants discussed how they make economic sacrifices to organically farm. The commitment to organically farm was shown by the sacrifice of economic values for ecological values, love of being outside, sense of pride and accomplishment, and the learning that is associated with farming. As mentioned earlier, the five participants spoke of how their initial preferences had evolved over time into a more meaningful commitment to the community. They shared how they value the positive impacts their careers have on the local community much more than making a lot of money. In addition, the farmers spoke of how hard they work and their recreation time often is blended in with their farming. This is part of what defined their seamless way of life. Four of the farmers discussed how they maintained a balance where they have fun outside of farming also.

First, I introduce you to their choices to remain in the farming business, sacrifice making a lot of money, and contribute to the greater good socially and ecologically. Next I discuss how they live their life in balance between work and fun.

Due to low incomes, all but Parker have second jobs, Parker solely farms for a living. Parker sacrificed making forty five thousand a year as a research assistant to begin his lifelong dream of a farming business. Elizabeth and Ella both have part time jobs that reduce in hours during the farming season, but increase again to almost full time in the winter. Stephen and Richie have winter jobs to have an income during the off seasons. Although the participants may have other jobs, they all primarily consider themselves farmers and are proud of it.

Elizabeth's part time job was as an accountant for a firm.

The more I did it [farming], the less likely I was to have a nine to five office job. Even though I do have a part time nine to five office job now to support my farming operation...I am a farmer and think like a farmer, almost all the time, except when I am being paid as an accountant...Hopefully I will always be able to make a living on it and find land. Probably never be able to fully support myself being an organic farmer, but it's defining. It's who I define myself as being now, it has really gotten under my skin. I don't want to stop. (Elizabeth, #3)

All five agreed that they feel that farming has become part of them, and that they could not do anything else. Every spring, year after year, these people choose to forgo making money in their alternative job, and resume farming for the upcoming season. As sense of place evolves over time through deepening relationships, so did all five participant's commitment to organically farm. Their commitment is grounded in a deeper set of values around how what they do is "environmentally and socially right."

I get a lot of satisfaction out of it [farming]. I am not getting any monetary gain, though I haven't given up the hope that I am going to be able to support myself off the business. There's a lot of satisfaction in doing a good job. In farming

immediately, but you will over the seasons. Next year you will be able to see, "Well, I could really see the fruits of my labor from the previous year." An accumulating process, and that's very satisfying to me.

I put a lot of value in trying to right some of the environmental wrongs of our present society. I do it through farming. There's higher goals, higher aspirations involved beyond just the going out there and hoeing, and spreading fish emulsion. I feel like I am doing something for the greater good, of my little one-acre plot, cause intellectually it seemed to me that, the farmer was a dying breed in our society.

There is so little farming in the United States as a whole, and in New England. It's been a hundred years since we have had an agrarian culture. It just seemed like a foolish thing as a culture to really divorce yourself from the food you eat and not being able to raise food. (Elizabeth, #1)

It's a million different reasons [why I farm]. I like the work. I like being outdoors. I love growing things. I take a lot of pride in it; when I go to the market and I set up my stand, that is one of the greatest moments. I step back and look at all the things that I have actually created, with a little help from the weather. There is an enormous amount of pride that you just don't get from office. (Elizabeth #3)

Ella sacrificed money from landscaping, to work in what felt more right to her ecologically.

I landscaped for a couple of years and I was making great money. But, I was so unhappy with the situation of working for a company that used pesticides, and I was just rolling out lawns. Even though there were great people working there, I just personally had such a hard time with the ethics of working for a company like that. As soon as I found out that there were organic farms around here, I was all done with landscaping. I started at the berry farm, in 94-95. Now I make 7.50 or eight dollars an hour and I am happy... (Ella Interview #1)

Stephen maintained a lucrative carpentry business during the winter months. He shared why he returns to farming every spring.

I enjoy being able to produce something that sustains life. There is a huge amount of satisfaction in being able to do that and do it fairly well. It just seems to me that this is what I should be doing. It's kind of obvious in some ways, I do work as a carpenter in the winter, and as much as I enjoy that, I've never really seriously considered not farming in the summer. Even though the option has certainly been there and I would make a whole lot more money by being a carpenter year round. I couldn't not farm on some scale, it might not be on a commercial scale, but I'm always going to have to be growing something, I am sure of that. (Stephen #3)

Richie had an antique appraising job in the winter months, and he also bred springer spaniels. He left this full time career after saving enough money to farm full time when he learned he could sell the food he grew.

Farming is hard work. All five participants attested to how there is always more work that can be done. Although the work is all consuming and never-ending, they do this because love farming. The way of life of a farmer is hard work, does not bring in a lot of money, and requires dedication. The unifying sentiment is that "You have to love it." Feeling of pride, sense of accomplishment, love of being outdoors, the magic of seeds growing into plants and the daily learning process that occurs feeds these five participants passion for organic farming.

Planting and getting the fields done, you can never get it all done. There are never enough hours in the day, seven days a week. You gotta like working to do it, it is a lot of work. I wouldn't recommend it to anybody if they didn't like working hard because it is a lot of hard work... There is a million things you gotta keep thinking of. Yea it is a lot of work, but it's fun, you gotta love it, you definitely gotta love it. (Richie, Interview #1)

Because farming can become all consuming, four of the participant's spoke of their focus to try and have a more balanced life. Stephen had begun to achieve a balance in his life, which both Ella and Parker emulated. For Stephen, his main outlet is contra-dancing. Ella, as a result of working with Stephen, has begun to try and live a more sane and balanced life. Her extra-curricular activities include surfing, environmental and political activism, and maintaining a personal life where she spends time with friends and her boyfriend. Richie tried to get out three or four times a summer to surf. Parker shared how he took the first day off in eight months, but how he

Stephen spoke of what the effect of his more balanced life has on his farm.

About three years ago I would work 14-16 hours a day, just trying to get things done. Now if things don't get done, they don't get done. I think sometimes I may have gone too far in that direction. But, it's a lot more fun than worrying about what didn't get done in a given day, a lot less stressful. What I have found out, no matter how long I worked or how much I worried about something or stressed about something, there was always more that could have been done. So I do just a little bit less, stress less, and there's still things that could have been, but the situation just hasn't really changed, and I'm not under a huge amount of stress, most of the time. There are times when it gets pretty stressful. (Stephen, #2)

When Ella had her own business, she realized she wanted to change her high stress work ethic when she observed and envied Stephen's farming operation.

We'd come driving into the other side of the farm, in a rampage to get everything ready for market and hardly ever take a lunch and sit down. They'd [Stephen's crew] be chilling out, taking definitely a one hour lunch. I'm like, "I'm not capable of giving this to myself yet when I work for myself." We'd be like, "God they're having such a mello time, I want to be like that." It's just a lot of fucking work...Just not going, going, going 24-7 and not being able to stop... I think Stephen has gotten it down to a degree too where he just, isn't worried, or he probably does but he just takes it easy. I just needed to get that mentality a little better, if I can at all by working with him, I think I have somewhat. (Ella, Interview #3)

Parker spoke of how he too admired Stephen in his work ethic and tries to achieve a more relaxed attitude. Although he did not take a day off in eight months, he discussed how a farmer's life is seamless and the difficulty in differentiating between work and his "time off."

It is a life; there is no job. This isn't a job at all, this isn't work at all, and this is just what you do everyday that's all. If I had a day off? What would I do? If I want to go someplace, maybe go to a museum. But anything I did to improve the farm improves my life. We started doing some landscaping around the house, is that off or farming? Cutting back all the trees, the brush along or outside the greenhouses and stuff like that, dresses up the place, makes it look nice, also does a lot for varmint control, is that off? What's time off for anybody? Other people who go to a nine to five job or something, they leave a place, but I don't leave the place so everything I do seems to have something to do with it.



It's a life, so everything that you do, the economics are completely intertwined. If the furnace in the house breaks, the money is coming from the farm. Everything in our lives really connects with it [the farm], so it is a life. We don't have a job and you leave. (Parker #3)

The way of life of the farmer is all-consuming, and requires a deep level of commitment to continue to pursue this as a profession. The commitment renews every year as the seasons pass and it is time to plant again. As their sense of place developed, so did their commitment to live the organic farmer way of life and organically farm. Although the way of life has many challenges to it, at the heart of it is both their love of and their deep commitment to organic farming. This commitment began to take the form of developing and sustaining ethical values and behaviors, to care for and nurture the place and the community. Part of how their care for the community is through public involvement.

#### *Public Involvement*

The participants showed their commitment to their community through public involvement and citizenship. As mentioned before, all five participants felt that they provided a public service to the customers. They did this through sustainable agriculture, educating customers, and providing customers with locally grown food that they could not grow themselves. In this section I provide data that demonstrates their commitment to education and political involvement. The other two aspects of public involvement, sustainable agriculture and meeting the needs of the customers, were demonstrated in the sense of place section.

Education is regarded as very important for four of the farmers. Other ways in which the farmers are publicly involved is through political activism and membership in

farming organizations. First I discuss education as a public service and then discuss their activism and membership.

Five of the participants discussed how they viewed education as part of their commitment to organic farming.

[Part of organic farming is education]. Even though presently there's plenty of food in this country and probably in most of Western Europe. The food system that exists I don't think is sustainable, I think at some point, there going to be food shortages and it's primarily because the way food is being grown. It just can't be grown that way for indefinitely.

Part of what I try to do, subconsciously, I think in some ways, is to show people that there's another way of growing food that is sustainable, that can be done essentially forever. Along with the sustainability part of agriculture is just the fact that food really needs to be grown in a manner that doesn't damage the environment. Which is one of the main things that I try to do. Whether or not I am actually accomplishing that I don't know, I may never know. (Stephen #3)

Richie shared a similar sentiment in his desire to teach people about organic food and eating healthy.

She [the woman who taught him about growing food without chemicals] took her time out to teach me, and I learned. I just feel that I am an extension of her. Maybe in all the years that I have been doing this, maybe there is one student or one worker that will go off from here and do their own thing and be an extension of what I know, and just carry it on. Even if there is just one, it is worth it. (Richie, #3)

The integration of education into organic farming was motivated by the goal to forge connections between people and food. Besides customers, Richie, Ella, Parker, and Stephen educated crew and other members of the community.

Stephen, Richie, and Parker conducted internships, apprenticeships, and on the job training. In addition, Stephen began a summer camp to help children connect to where food comes from. Ella eventually taught for this program during the summers. Richie taught courses for the local university in organic farming and sustainable living and volunteered at the local food cooperative for the university students.

Stephen's crew often came specifically to his farm to learn how to grow food, and learn about the way of life.

The focus [of the farm] has broadened a to include some community aspects. It certainly has sort of been an informal educational situation for several years, in that a lot of the people that work here come here to learn how to farm organically. And so, they get an education to some extent, I am not sure how much of an education they get, some anyway. (Stephen, #3)

Parker also educates his crew. He had an internship program where interns come for the summer, live on his farm, and learn not only farming but also the way of life, similar to how he learned from his uncle. He was in the process of developing a manual to provide a more full experience.

Richie provided internships at his farm for students in the environmental studies program at the local university. He also volunteered at the co-op, an on-campus food buying cooperative, where he recruited interns but also educated the members.

The co-op is a teaching tool, it teaches students how to get this good food, food without chemicals. That's what is important to me, I don't care about the money. There is not much money, there is getting by money, you pay your taxes, and you put food on the table and you pay your electricity and stuff like that, it is very hard, you gotta really love it, you gotta be dedicated. (Richie #1)

It's important that the students while they are in college learn how to eat good food, good nutritious food, good food that hasn't got chemical residues in it, food that has cancer causing chemicals in it. I think it's just as important as any class that they are taking over there, it is basically a class in itself. (Richie, #2)

Other public involvement involves political activism and membership. Two of the five participants, Richie and Ella, were politically involved in making change. Richie was involved with the issue of using sludge in local agriculture. Ella was involved with issues that integrated social and environmental problems, such as organizing protests for the opposition of genetic engineering.

involved with issues that integrated social and environmental problems, such as organizing protests for the opposition of genetic engineering.

I work with a group called NFN, that does a lot of, not just ecological and forest protection, but also social protection, protection of people that live in forests. ...Its not just a total environment based without looking at the reality of the people that live in the environment.

... NFNR is an outgrowth of that, [an organization that resists genetic engineering. Which I feel very strongly about, that it's being misused and co-opted by big business, to be a big money making venture. They say they want to feed the world but I'll tell ya, if the inequity in the system was addressed, there was plenty of food for all people. And there is no need for them to genetically alter what was put on this earth in a certain way to become something else. I mean sure, humans have been hybridizing plants for thousands of years, ever since we have been growing and working with plants and changing them. But the whole nature of genetic engineering is really completely changing, bringing in elements that never could cross in nature. I feel like that's inherently wrong. (Ella, #2)

The other participants are not politically involved with environmental activism, but they belong to farming organizations where they try to make change. All but Ella are members of the local growers' association and the regional organic farming association. In order to sell food at the farmers markets, the grower's are required to be actively involved with a committee of the local growers' association. For example, Stephen was on the committee that focused on building relationships with the towns that housed the markets. Elizabeth was on the public outreach committee, and she surveyed the public to find out the demographics of people who typically shop at markets.

In addition, all five participants attended and participated in organic farming conferences and workshops. The farmers became increasingly immersed in their community through public involvement. Educating local farmers, customers, and community members provides a deeper goal and purpose beyond simply growing food for people to eat. The participants feel obligated to forge connections between people

Through the immersion into the farming community, the participants developed a sense of place. The social context, in which they became part of, helped shape their commitment to both the organic farming way of life and to making positive social and ecological change. By interacting with friends, family, other farmers, customers, and government, the participants felt supported and cared for, and therefore developed an obligation to return this support and care. They believe that part of being an organic farmer is growing food, and the other part is to make positive social change.

### *Conclusion*

The local human and non-human community in the seacoast region of New England supported the farmers and shaped their ability to enact their initial preferences in the form of organic farming. Over time, through their immersion in the organic farmers' community, the participants developed place attachment to the land they farmed. The local community supported the participants to construct ecological and social knowledge. Due to the nature of organic farming, the farmers felt a sense of interdependence with the local ecosystem and with natural occurrences, which led to the development of their ecological identity. Their ecological identity was closely related to a spiritual perception that they are not separate from the non-human community, but rather part of it. They felt supported by the non-human community and considered themselves to be partly defined by their place in the local ecosystem.

As a result of the support and care they felt from the social context, the participants developed a social identity by defining themselves within the social context of organic farming. As a result of the initial support and care they felt, the participants developed a desire and felt obligation to reciprocate this support and care toward the

land and the community. Because they developed a spiritual perception of their relationship with the non-human community, they were able to extend their caring obligation toward the non-human community. This obligation and commitment contributed to their increased public involvement.

Their public involvement included practicing sustainable agriculture, meeting the needs of their community, supporting education, and becoming politically active. These actions that evolved out of their developed ethic to care for the place contributed to positive social and ecological change. The positive nature of their ethic and actions are a direct result of engaging in organic farming and learning from their community what to value and support. In organic farming, the knowledge and skills that are passed on are based on an environmental ethic to preserve the soil for long term sustainable agriculture. Therefore, the social context in which they were immersed helped shape the positive nature of their ethic and actions.

The relationship between the farmers and the local human and non-human community evolved into being mutually supportive and nurturing. Over time, through their immersion in the local human and non-human community, the farmers' initial preferences evolved into an environmental ethic. Their environmental ethic to make positive social and ecological change evolved into environmentally responsible behavior: ecologically sustainable behavior and citizenship. In conclusion, sense of place and environmentally responsible behavior are both rooted in the social context and an associated ethic.

## Commercial Fishermen Data Analysis

Careful to keep the analysis of the fishermen separate from the farmers' analysis, I compared and contrasted the five fishermen's coded data, searching for emergent categories and themes. Multiple common categories merged into the same three broad themes evident in the analysis of the farmers' data. Although the model is similar, the fishermen's data maintains its own integrity. In this section, I briefly review the three broad themes and then discuss these themes in greater depth, providing narratives from the fishermen to validate the findings.

1. *Initial preferences: A starting point for situating place and identity.* The five fishermen began with initial preferences that inspired their professional work. These inceptive preferences included their love of the outdoors and/or the ocean, commitment to making a lot of money, desire for independence, and need for adventure and hard work.

2. *Understanding sense of place through human and non-human community relationships.* As stated in the organic farmers' analysis, the received view of sense of place is defined by place attachment, ecological knowledge, and community membership. Place attachment refers to the emotional bond that can exist between an individual and a particular environment. Ecological knowledge is considered to contribute to one's ecological identity, which inspires environmentally responsible behavior. Community membership contributes to social identity, which, the literature also suggests, leads to environmentally responsible behavior.

Like the farmers' data, the fishermen's data suggests that the development of sense of place was socially contextualized in the local commercial fishing community.

The human and non-human community supported and shaped the participants' enactment of their initial preferences by "inviting" them to live in the place and to learn how to fish commercially. Through immersion in the commercial fishing community, the participants learned how to become successful fishermen from supportive and caring community members. Over time, the fishermen developed place attachment to the physical and social aspects of the place, the ocean and other fishermen.

For example, the participants learned from other fishermen how the local ecosystem works and affects their livelihoods, such information as where to find fish, where fish migrate, and the impact of temperature and weather on fish and on the harvesting of fish. The participants also learned social processes from the community, such as the selling of fish, government regulation of fish, and camaraderie of fishermen. The fishermen's lives depended upon the local ecological and social processes and they began to view themselves in relationship to the place, which resulted in a developed ecological and social identity. Their ecological identity resulted in a spiritual perception that the ocean was part of them: "It is in my blood." The spiritual perception of the unity of self and ocean contributed to a felt relationship with the ocean and the ocean's inhabitants.

The human community included family, other fishermen (mentors, friends, competitors, and crew), and the larger social context (the government which set the regulations), and customers. The non-human community encompassed the inhabitants of the local ocean's ecological system. "Natural world" can also refer to the ocean itself, and to natural occurrences such as the weather.



The participants' identities were closely tied to the place, yielding a strong place attachment. Due to the social context of the commercial fishing community, the participants' sense of place developed and was sustained. Eventually this led to the development of their ethics and associated actions.

3. *A seamless way of life: From sense of place to environmental ethics.* As a result of their immersion into the commercial fishing community, the participants developed a sense of place. The local community supported and cared for the participants and helped them evolve into successful fishermen. The fishermen developed a felt desire and obligation to reciprocate the care and support back to the community. Because the fishermen developed a spiritual perception that the ocean was in their blood, they were able to feel supported and cared for by the non-human community. Therefore, the fishermen were able to extend their obligation to reciprocate the care back to the non-human community.

Over time, their initial preferences evolved into a deeper commitment to the commercial fishing way of life, to the industry, and to the associated community. They developed a commitment to preserve and sustain New England commercial fishing as a way of life and as an industry, which they had learned was dependent upon on the sustainable harvesting of fish.

These three themes of initial preferences, sense of place, and environmental ethics are comprised of more specific categories, which were even further distilled into sub-categories. As in the analysis of the farmers' data, I use the transcribed data to present these categories in the following sections. These categories and subcategories are not uniformly consistent across all five of the participants. The categories that I discuss in

the upcoming sections are the ones that the majority of the fishermen referred to as influential in the development of their sense of place and their associated behaviors.

*Initial Preferences: A Starting Point for Situating Place and Identity*

All five of the fishermen began with preferences that included a love of the outdoors, a commitment to make a lot of money, and a need for independence and adventurous hard work. These preferences have been influential in the participants' lives.

The love of the outdoors is a preference that superceded their economic desires because they all mentioned that they would not choose an economically lucrative profession that kept them indoors. All five discussed their affinity for the ocean and a love the outdoors. Four of the five fishermen grew up in the seacoast area, however not all four knew that they wanted to be fishermen. Mike and Al did not grow up with an affinity to commercially fish, whereas Miles and Chris did. James did not see the ocean until his early teens.

Mike grew up recreationally fishing with his family, which initiated his love of the outdoors. He did not envision that fishing would be what he would end up doing, but he liked the outdoors.

[My family] always sport fished. We had a little 16-18 foot wood boat we went out on, fished in the river mostly. Never really out on the ocean. Piled the whole family in it, caught codfish in the river, flounders, a few stripers, mostly flounder ...I wasn't sure it [commercial fishing] was for me, I could see it was a hard lifestyle in many ways. I did enjoy it; I like the outdoors and all. (Mike #1)

Al did not know that he would commercially fish, instead he always liked the outdoors. Ever since he started working at age 16, he worked for the commercial

fishing industry. He liked the idea that he could be outside and make a living simultaneously.

...Being an outdoorsy type person, I was brought up with, hunting and fishing, like trout fishing. Then you come to commercial fishing, it's the same type of thing. You can make a living doing this, you are working outdoors all the time, which is nice. I could wear a suit and a tie, but I would rather be outdoors. Fishing gets under you. (Al #3)

Chris and Miles grew up with a strong affinity for the ocean and enmeshed with the commercial fishing culture. Chris is a first generation fisherman, who grew up in the downtown of the local port town. He knew he wanted to be a fisherman by age eight.

...Born in this town, moved when I was eight years old to a house that is right on the water, the back channel. it's got it's own small, tidal dock. My love affair with boats started then. It started with a skiff, they let me go out and row around, by myself. Then I graduated to a motor, then bigger skiffs over the years. I was exposed directly to it when I was out, and fell in love with boats, and water. Ever since I can remember when I was eight, it was like "Boom, wow, that's what I want to do." I was totally in love with boats and anything to do with them. (Chris #1)

... I loved growing up around the water. That's all I did. I hung around, after school or whatever, I was on the waterfront in one way or another. I just fell in love with boats and the ocean, and luck of the draw for me. (Chris #3)

Miles grew up in a seacoast town, where his father was a boat builder. He also noted that ever since he can remember he was doing something on the water and fishing oriented. James initially grew up in Detroit and his family later moved to the New England State, but not on the coast. He did not grow up in direct contact with the ocean, but he remembered his first interaction with the ocean.

I didn't see the ocean for the first time until I was thirteen years old. I remember seeing it and being drunk on it, just amazed. Went to Cape Cod, and I remember ditching the fam and walking. There was just the dunes, the beach, and the ocean. It really got me right by the balls, I was like, "I want to be as close to that as possible." (James #1)

The five participants had strong preferences that led them to commercially fish because they loved the ocean and being outdoors. However, loving the ocean was not enough for these men to want to commercially fish for a living. The desire to make a lot of money and the need for adventurous, independent, and hard work were the other strong preferences.

All five participants wanted to make enough money for a decent living. Three of the five strongly preferred to make a lot of money, whereas Miles and Chris were not motivated as much by the need to make a living. Al worked and attended college for his resource economics degree. He worked part to full time at the fishing co-op during his college years. After college, he became both a commercial boat owner and the manager of the co-op. He always came back to the co-op because he knew there was money to be made and consistent hours of work. He loved the outdoors, but he also loved that he can make money fishing.

...That's your goal in life too, is to make a good living. Like I say, it just depends on the individual, and certainly making a good living and enjoying something you do is what makes it fun. (Al #2)

Fishing provided a way to make a lot of money, especially for people who did not graduate from college. Out of the five participants, only Al graduated from college. Two of the others, Mikes and James, began school and dropped out, and the other two, Miles and Chris, never mentioned taking courses. At the time of the interviews, James continued to want to attend college, but had not pursued that yet. Instead he spoke of how since high school he had always worked jobs where he was outdoors and there was an element of adventure. However, these were unsatisfying to him because they did not

compensate him monetarily as he had wished. James wanted to work hard and make a lot of money.

...I would say that the tree doctor thing definitely led me toward fishing because there was that extreme excitement there, but there was no money in it... I need the money more than I need the adrenaline thing.

...I went [to college] for a year solid, and I made good grades and right about then is when I decided I wanted to go fishing. You see all the propaganda about Alaska and the big money you can make out there working on fishing boats. So I hitchhiked from this port town to Alaska. (James #1)

James did not continue fishing in Alaska because he made the same amount of money in the Northeast and he preferred the Northeast's weather. At the time of the interview, he had been fishing full time for eight years off the shore of the New England State. He stayed in fishing because he appreciated the fishing industry's compensation for his hard work.

If you do a bad job, you are not going to get paid as much, and if you do a good job you might even get a little bonus. Fishing you get paid on shares, you get a percentage of the catch. ...Fishing is the first situation I have ever been in where you can actually, how hard you work, you see results. You get bigger share or you get more experience. (James #1)

Mike began fishing in high school to make money. Later, he dropped out of college and continued fishing. He originally wanted to work in outdoor recreation, but he quickly learned that there was not a lot of money in recreation. Therefore, he slowly evolved into a full time fisherman.

I wasn't the best student so I dropped out of the local university. That is not why I kept fishing but I guess it was a combination of it was adventurous and you get the possibility to make a lot of money so that kept your interest...

[You] kind of evolve into it [being a fisherman]... [My evolution began] like I was telling you my father was a co-op manager...Not too much a thought process if you need money and you are on your own at 18. [Fishing] could be a good source of money that was the thrilling part of it. (Mike, #1)

Both Miles and Chris did not attend college, but both grew up on the water and commercial fishing was the job they found when they were first started to work. Both Miles and Chris began with owning their own little skiff and lobstering because they needed a job, and they thought they would begin with their own business. The typical paths for kids in a fishing community are to first lobsterfish and then either continue lobstering, or begin to harvest groundfish. In addition to running their own lobster businesses, they had other fishing industry jobs because they paid well.

I got a small lobster boat and had a few traps, and that was in junior high, twelve, thirteen, fourteen. Conned my father into buying me a few lobster traps and I was gonna support myself that summer, and I tried my go at making money on lobster. He was supportive of me, I would be out a lot. (Chris #1)

Chris did not feel that money is the primary preferences that influenced his choice to fish. He believed that it was partially important, but he was committed to the way of life, and that was defined by independence.

Stubbornness, I think a majority of the people will tell you that same thing. That old saying, it's in your blood, there is something to that. I have never been in it for strictly the dollar cents and a paycheck. Certainly not in it for benefits and stuff, that I never had. It gets in your blood. It's just the independence that's probably ninety percent of it for me. Be my own boss. It just so happens fishing in the ocean is where I ended up. It could have been anything if I was elsewhere. The independence is what really strikes it for me. (Chris, #2)

James agreed that the independence is important, and he claimed that most fishermen are into their independence. James was the only participant who did not own his boat and was still crew on other fishermen's boats. He aspired to have his own business, but he said that even working for another person he feels the freedom.

There really is nothing like working out there. Nobody is really on your back. ...I never really appreciated authority... If someone is not treating you good, "Bye." There are plenty of other boats to go work on. (James #1)

...You are on your fucking own. That's one thing the ocean does to you too. You are on land and there is all these people you can fall back on. But

living on the ocean, you have to have a certain level of independence to begin with, to really groove on it. But even once you get there, it's just like you really realize how on your own you are. (James, #2)

Al loved the outdoors and making money, but he also enjoyed the freedom of having his own business.

Freedom, it's your own business, and fishing is something you like to do. I am a nature kind of guy so that draws you to this, it's your own business, and then you are on the water, you are out there with nature. Honestly, something as corny as sunrises and sunsets and stuff like that, just being out on the water. You are out every day, you just appreciate it. Then if you can make a good living at doing it, you really gonna enjoy it. (Al #3)

...The one good thing about the fishing industry, what draws it to people is they like being on the water, but it's your own business. (Al #2)

The forms of independence manifested it'self in each fisherman differently, whether it was stubbornness, a need to feel appreciated, or having the freedom to have your own business plan. For Miles, he liked the freedom of being able to do what he wanted and when he wanted. However, he felt that his freedom has changed in recent years due to regulations. "There again, we are back to those people [the government]. Bleeding us. Oh boy, the free enterprise is gone now." (Miles #1)

As with Miles, Mike also feels the pressure of the regulations affecting the freedom and independence he cherishes of being a fisherman.

It's a long day dragging. Before I leave I have to get a number, when I come back, I have to call in and get a landing number. I have gotten used to that, it was a pain in the ass at first. If you really want to fish, you have to put up with it. That's the hard part, so much bullshit that goes along with it that way. It's not nearly as free, it's still free and independent and all, but not like it used to be...its good and bad, it's both. ...Fishermen still strive for that independent free spirited feeling. (Mike, #2)

Along with the independence and freedom, comes a passion and desire for adventure and adrenaline. Catching a lot of fish, working very hard, working in a risky

profession, and making a lot of money is thrilling to the participants. James found that after he began fishing, he no longer needed to vacation and to do extreme sports.

[Fishing] you get your ass kicked, you really get the shit kicked out of you. I used to snowboard. I used to hike two days, for one extreme vertical run. I used to love that stuff, motorcycle trips across country, hitchhiking cross-country two or three times, that was my idea of fun. As soon as I went fishing, it's like when I am done working, chill out drink beer, read books, write, go back to school. There is no need for those [extreme sports]. Fishing is really an extreme, and you are compensated for it too. (James, #1)

Fishing is not only exciting because it is like an extreme sport. The adrenaline and excitement can come from working hard and making money off big catches. Chris shared why he stopped lobstering and started groundfishing.

[In high school] I got bored with lobstering relatively quickly within a couple of years. In my mind it wasn't romantic enough. ...I was fishing with some other guys and we would go down to Gloucester and then unload there and then go to the bars and whip it up and to me that was like "Wow, cool." I lost interest in lobstering and went and did other things relatively quickly, mostly dragging...

To me it [dragging] was just more exciting. Plain and simple, and that's why I went with it...Back then, not quite so much now, the unknown variable was, sometimes it was really like gambling. You didn't know if you were gonna catch 20 pounds or 2000 pounds. There were some good catches back then of fish. It was exciting to see a good catch of fish like that... When you see this huge net full of fish come up over the rail of the boat it's like, "Wow!" At that time it was more macho to fish further off shore, you know, rah rah rah, all that crap that guys do. (Chris #1)

Mike felt that he evolved into a commercial fisherman. He did not begin with a strong desire, but the money, being outside, and the adventure all were attractive to him. He also enjoyed that he is always learning and doing something different.

I always enjoyed the adventure of it. Every day is an adventure, still is. Everyday you are going out on the ocean. It is adventurous. It is thrilling, it's back to nature, the real world, the natural world. It is interesting, it seems like it's something different everyday. You see something different like I never seen before if you are alert. It [the ocean] never ceases to amaze me. To see the ocean and the sky every day it seems a little different no day is exactly alike, visually, or what you might catch, circumstances. (Mike, #1)



Similar to Mike, Al found the constant change fun and exciting. He stated that every day was different and therefore he was always learning. Although Miles feels that he can get occasionally excited with gill-netting if there is a big catch, he gets his adrenaline rush from the new and exciting things he can see while he is on the ocean.

All five participants were committed to their preferences of being outdoors, making a lot of money, and being independent and adventurous. Their community first introduced the participants to commercial fishing, and then immersed into the commercial fishing community, where they began to develop a sense of place.

### *Understanding Sense of Place Through Human and Non-Human Community*

#### *Relationships*

The data of the fishermen suggested that the participants developed a sense of place in the social context of the commercial fishing community. The local human and non-human community supported the five participants to enact their preferences in the form of commercial fishing in the New England region. In this section I show how the participants' involvement with the local human and non-human community contributed to their place attachment and their ecological knowledge, socially contextualizing the development of sense of place. In the following section, "From sense of place to environmental ethics," I focus on the community membership and social identity component of having a sense of place.

This section is broken up between the human community's support, followed by the non-human community's support. At times, both the human and non-human intertwined to support the participant. Last, because the non-human community is

perceived differently than it is usually received in the modern culture, I discuss their personal and spiritual relationship to the place.

The human community includes family, other fishermen (mentors, friends, competitors, and crew), and the larger social context (government who sets the regulations), and customers. The non-human community includes the ocean, the ocean's ecological community, and other natural occurrences such as weather.

### *Family*

First, I show how the five fishermen have remained in this New England coastal state partly because of family. Then I show how family played a large role in the five participants' lives by supporting the participant to either become a fisherman or continue to fish.

The participants in this study all lived and commercially fished in the seacoast region of a Northern New England State. Their sense of place was developed and sustained in this region. Therefore, it is important to note how the participants came to live and stay in this region, which was primarily family and the ocean. James expressed how important his family is to him, which contributes to his desire to stay.

...My family moved [to this region], but the nice thing is, I don't think we are going anywhere. My family, I am the oldest of five kids and we are all right here... Coast of New England.(James, #3)

Both Miles and Chris lived with their parents. Miles moved back to help his mother after his father became ill and passed away. He takes care of his mother and is committed to staying in the state as long as his mother is still living. Miles helped rebuild the house and he maintains the grounds.

Like Miles, Chris lived with one of his parents, his father. He has remained in the state because of his family: his father and the family he began with his ex-wife.

He [my father] is a cool guy. I went through a divorce last year, so I recently moved back in with him. It's been kind of cool. It's good for him, company. It gives me a chance to spend some time with him again, I had fifteen years of being married, barely even called him, now I am living with him again. It's like "Wow." It's good, we are getting to be buddies again, it's really neat. (Chris, #1)

...[I stay in this state because] I like New England. Family kept me here. Obviously once I got started on a family and everything, that kept me here. [I have a sense of] belonging in this state. I am proud of this state, my father's born and brought up here, knows about the state quite a bit. I like this state, and I feel like I belong here, for sure fishing in this state. (Chris #3)

Mike's family also lived locally, influencing his living in the region. Al has stayed in the New England coastal state because of family as well.

... At this point I got a family and a house now, so I will probably stay here forever, which is ok... My family is still all around here. ...We are a pretty close family. That's why basically I stay, the whole family has been around here and the area is nice. (Al, #3)

The participants' all felt that their families had either financially or emotionally supported them. At the time of the interviews, four of the five reciprocate the support back to their families of origin. Miles helps his mother with house maintenance and construction, Chris is re-developing a relationship with his father, Al helped his brother find a job at the co-op, and James has dreams of helping his family continue setting roots in this community by remaining here himself.

Family not only influence the participants to stay in the region, but they also encouraged the participants to either start commercial fishing or continue fishing. Chris' family moved to a house on the water when he was eight, he fell in love with boats immediately. His parents supported his love by allowing him to use the little skiff as a young child. Later, Chris asked his father for financial support to buy Chris lobster

traps so that he could begin his own business. Throughout time Chris felt his father's support, even though his father has nothing to do with the fishing industry.

[My father's always been supportive of me] 100% 110%...It's [fishing] the furthest thing from what my father does. It's amazing...He just totally is not into fishing or anything mechanical like that...He is on the school board and stuff, it's just amazing to me that I am so different from him. But it's alright, we respect each other still. (Chris #1)

Like Chris, Mike's father was supportive in his choice to begin fishing by finding Mike his first boat to work on.

In high school he [my father] got a job here and worked for like 15 years or something like that as co-op manager. I am a first-generation fisherman because my father wasn't a fisherman. He was a recreational fisherman and a lobster fisherman when he was a kid, but not while I was growing up. [I got into it because] I was down here [at the docks at the co-op], talking to fishermen and seeing what was going on. My father got me on one of the boats and that was in 1980. I was in high school still (Mike, #1)

For Miles, commercial fishing was infused in his neighborhood and family. His father, brother, and cousins all contributed to his choice.

Miles' father was a boat builder, which gave Miles access to the commercial fishing industry. Later his brother helped Miles return to the fishing profession after a few year hiatus.

Al had no exposure to the fishing industry before he entered it for a summer job, indirectly through his one of his father's friends. He has never left since his first job.

None of my family was in the business, but one of my father's best friends was the manager of the co-op back fifteen, seventeen years ago. They lived down the street, and his two sons are still in the business. He was the manager and I was in high school looking for a summertime job so he lined me up with a summertime job down here, and that's when it all started. I liked it from when I first came down here. And the funny thing is I didn't even know this place existed. I had no idea about the fishing industry. Like I say, none of the family was in it...It gets in your blood. (Al #1)

Later in Al's life, his wife and emerging family influenced his decisions whether to work in the fishing industry on land or out at sea.

...The old manager was leaving, and they couldn't find the right person for the job...they searched and they asked me if I wanted to come back and manage, cause they thought I would do well. It was a tough decision to give up fishing and to come back. I'm married and at the time, we were getting ready to have a baby, so my wife was like, "Yea, I want you back on land." (Al, #1)

During the third interview, Al shared that he was going to quit as manager and return to fishing his own boat, because he and his wife concluded he would have more time with the family if he were running his own business. Similar to Al, James was strongly influenced by his fiancée, who encouraged him to fish.

I will come home with like a fish [tuna] like this [spread out his arms], I am all exhausted because I have been working. Shannon is an awesome fisherman's wife. She really lives for it, she'll take it and take out her knife, she'll start cutting up, freezing this, icing this down, slicing this up for sushi for that evening.(James, #1)

Unlike the preceding fishermen, James was not exposed to fishing via his parents or by living near the water. Instead, James found fishing because of his own love of the outdoors, independence, adventure and desire for money. However, family played a large role in his choice to continue fishing. His family initially pushed him to finish his degree primarily because they thought he would not make money without a degree. However, James was able to show his parents otherwise, that fishing can be lucrative, which satisfied his parents to the point that they now encourage him to continue fishing.

Because I have a really tight family, what they think of me, as much as I can kind of blow it off sometimes, it is important to me, I want to be my ma's kid. My dad is like, "Kid, you get your own boat. You love it, we can tell you love it, you make a lot of money doing it, so, I can't see what is wrong with it." (James #1)

The participants experienced support from their respective families to live in the region and begin to fish. In addition to family, other fishermen also encouraged the participants to fish, and supported them to continue fishing by teaching them the skills and knowledge required to evolve into successful commercial fishermen. Other fishermen included family for some, like Miles' brother. For all the participants, other fishermen evolved into their friends, which will be discussed after the other fishermen sub-section.

#### *Other Fishermen*

The commercial fishing community initially helped the participants begin commercial fishing. Other fishermen included mentors, friends, competitors, and crew.

#### *Mentors*

The fishermen all had mentors, which included various members of the commercial fishing community. Miles, Chris, Mike, Al, and James described individual fishermen and old-timers who helped them learn how to fish, where to find fish, and how to sell fish.

Miles discussed how the fishing community includes everyone in his local community, particularly his family. His brother brought him come back into the commercial fishing industry after leaving temporarily to make money in construction. His brother shared his boat and business with him, until Miles continued on his own for the next twenty plus years. In addition, Miles worked for various commercial fishing operations while he was in grammar school, learning more about the fishing industry.

Chris grew up right on the water, close to where the commercial fishing boats were tied up, so he hung around the fishermen to absorb the way of life. He was attracted to the way of life, and the other fishermen modeled and taught him this.

For me, commercial boats were it. Everything I lived and breathed from an early age had to do with hanging out where boats were unloading or what have you. Hanging out where fishermen hung out... I went through the four years of high school... fishing with other people part time. I didn't start fishing my own boat full time, year round, until I got out of high school. Even then, I was lobstering most of the year and then in the winter I would go and fish with somebody else, just like this guy who is going with me. (Chris, #1)

Mike knew that he could not learn fishing from books, but had to experience it. He learned about fishing from both trial and error and other fishermen, Chris being one of them.

I was crew for five years on different gill-netters and draggers. My father bought this boat with another guy and Chris, who you interviewed, ran it and I worked for him for a couple of years. Then another guy ran it, I worked for him too. I worked for a couple of other fishermen, then I started running this... You can study fisheries in school, that's true. But, some thing's you can't learn in a book. Have to experience them, so I figured out I wasn't gonna learn[fishing in school].

There was a few fishermen here helped me out quite a bit, Chris helped me out. He is not too much older than me, two or three years or something but he had been fishing since he was 10. There was an old guy here that helped me out, he would tell me some things, but mostly it was trial and error. (Mike, #1)

Similarly, Al spoke of learning both from experience, trial and error, and working with other fishermen.

...I am a pretty good learner so I just learned how to fish... You just watch, you don't ask. You ask questions, some guys will tell ya, and some guys won't. But you just watch, try and figure it out yourself.

...When I went to buy the boat, I didn't really know much about it [dragging]. I just hopped on the boat, and the captain was gonna stay with me for a good six months and teach me. About two weeks into the teaching me, it was in the middle of shrimp season, he had an accident with a chainsaw and cut off a couple of fingers so...I was on my own. I had one deckhand who had been on the boat for a few years during shrimp season, so at least he knew the boat as well as I did, but that's about it... At that point, it was my boat and I had

payments I had to make, and so I had to go out and learn it, so I basically had to learn it on my own, but it worked out, it worked out really well (Al, #1)

[I learn the ocean bottom from] the charts and talking to people, a little bit of both and then you have to learn from experience... We had a guy just the other day shrimping, and he's been fishing for twenty years and he got his net hung up on something on the bottom... and he lost his whole net, 7000 dollars worth of net. He will remember that spot now, and he will tell other people. That's what happens, you learn from other people's mistakes too. (Al, #2)

James was still a crewman who continued to learn from his captains. He primarily worked with one captain, who, according to James, was grooming James to captain his boat when he retires. James mentioned that he has not only learned about how to fish, the types of fish, where to find fish, but also about the regulations because his captain is on a fisheries management counsel. He shared how he and his captain learn something new everyday, and how his captain modeled identifying new species using guide books.

The initial supportive relationships with mentor fishermen evolved into friendships with peers and old-timers. All of the participants relied on the communication between themselves and other fishermen, to learn where fish are on a daily basis, news on regulations, and keeping one another company.

### *Friends*

Although the five participants spoke of their preference for independence, they also spoke of the importance of the camaraderie with other fishermen. Over time, other fishermen evolved into friends, who continued to help and support each other in their commercial fishing endeavors. They also enjoyed spending time with each other. Miles, Al, Chris, and Mike said that their friends were other fishermen. James spoke of how he viewed the guys he works with as the closest people to him, but he also maintained his independence by claiming there are no loyalties to anyone. I provide



examples from each participant who spoke of the friendship and camaraderie with other fishermen.

I first observed the camaraderie and friendship during my first interview with Miles. Chris stopped by Miles' yard while Miles was fixing his boat to put back in the water. They shared laughs and jokes as they sat out in the sun for a break from working on their boats. Miles spoke of how Chris used to come around when he was young and be so interested in learning how to commercially fish. Miles spoke fondly of the fishing community.

We know each other for years. You go out there all the time. As big an ocean it is, you see the same people day after day, so in one aspect it is small. You see guys, you shoot the breeze on the radio, it's a joke. ...It is our own world out there, we don't want too many people infringing on it (Miles, #1). Even though it's big ocean, we know everybody. Same with any profession, you get to know the people you work with, whether you are banging nails, office work, fishing, we are all friends. (Miles, #2)

Al also spoke of the fishing community being comprised of friends. He believed that the sense of community among fishermen is partly what keeps it interesting for him.

There's a little fishing community, just working with the guys, you get to know everybody. Everybody knows everybody and you are all doing the same thing, yet you are all individuals, a lot of different characters (Al, #2) ... The fishermen get a bad reputation as a lot of drinkers and a lot of trouble. But the owners and captains really are businessmen. They are in it to make money. A lot of them have families. They'll have coffee and they'll talk, and they are good friends. (Al #3)

Many fishermen have a tight group of friends whom they support and help to find fishing grounds and warn one another of dangers. Beyond their close friends, there are other community members who they loosely help out. Beyond that there are fishermen who compete with one another and do not get along. There is a fine line that is respected between competition and support. Competition is discussed in further detail

in the next sub-section. Chris discussed his friendships and the fine line with competition.

[I communicate with other fishermen while steaming out] some. I have some real close tight friends I work with. We share everything: what was done, how we did it. They will do the same for me. If one of us wasn't out on a given day and one was, it is like, "Hey yesterday I thought it was better over here. " There is some camaraderie, that I am involved with ... It's all fun though. We have a lot of fun out there, it is good to have some camaraderie, we are out there on the radio or on land, it doesn't matter, we always laugh, it is amazing. (Chris, #1)

... Outside of that small group there's still fishermen out there and there's still common courtesy. We might not say "Come over here, you gotta try this," but we might say, "I wouldn't try it over there. That's pretty dry." For the most part, we are not out to cut each other's throat, but yet, there is only so many pieces of the pie. So without being in a malicious way, we can be competitive. (Chris #2)

Mike spoke of how his social community is intertwined with other fishermen.

He mentioned how he and his friends engage in the fishing community camaraderie, which often is defined by helping each other when it is needed.

I told Miles I'd go out because he didn't have help. His deckhand is a drunk, which is common. So he [Miles] didn't have anyone to go... I try to help out as much as I can. It's hard to find help. Sometimes in recent years he might go with me or I might go with him, or something. Help each other out because crew is hard to come by. (Mike #2)

James spoke of his friendships with the fishing community as being tight but not loyal. He spoke of that tension between the desire for independence and friendship.

... You are in close quarters, like your crewmen might be your best fucking friends and then a month or two later you might hate their fucking guts. It's just the nature of the amount of time you spend with these people. It's inevitable that you are gonna get close. You will know all about them, everything right down to the last time they had sex to what they had to dinner to how they feel about the fact that I am having a catholic wedding. There is that much time and isolation, that shit all comes out. But you are so close, and you are in such close quarters that eventually there is always falling-outs. So these sort of temporal human relationship are just fucking destroyed. (James #3)

The participants became immersed in the fishing community, and because of the amount of time they spend together, they came to trust one another, help one another out, and also befriend one another. Although they work hard to remain friends and work together, there is also competition among and between commercial fishermen.

### *Competition*

There are many allies and friends within the fishermen community, but there is also competition. There are different types of competition, friendly and fierce, both occur over fishing territory. Often the competition becomes fierce because of lack of communication. Effective communication on the radio can dissuade conflict.

Chris did not speak of getting involved with fierce competition. He said that although there is competition, they are also trying to support one another.

Some [fishermen] can be real guarded about information, wouldn't share it with anyone, no matter what. Some will lead you astray. There are a couple that are notorious for that. After talking with this guy you go, "Oh man, he is so full of it" (Chris #1). We are kind of competitive by nature. But yet, we are all out there trying to do the same thing and so we have that kind of compassion for each other.(Chris #2)

Mike agreed that the competition exists, but that camaraderie is strong too.

[The relationship like with other fishermen] is good, ... It's competitive, but try and help each other out, look out for each other... There are some you are friendlier with or course. Definitely camaraderie. [The competition is] to catch more. (Mike, #2)

Miles agreed that there is competition but the camaraderie is stronger.

However, at the time of the interviews, with the increased regulations, Miles commented that inherently there is less competition.

There is competition, but only to a certain degree. We are all friends (Miles, #2)...We used to compete. Back when, "Who could catch the most?" ...If he [Joe Smith] had 10000 we [the rest of the fleet] wanted 10000 of weight. Miles #3)

Miles thought regulations had curbed competition because there was nothing to compete over. Al thought that the competition had also decreased due to regulations, but for a different reason. He believed that the regulations forced so many fishermen out of the business, that the fishermen are more supportive and compassionate to keep each other in business. The camaraderie and support they received from other fishermen is what helps them succeed over time, particularly during harder times, helping one another stay in business.

A few years ago is when we hit our low... nobody knew if ...they would have to sell out and go get another job. We didn't know if the co-op would make it, we thought this place would close. Everybody was preparing to go out of business. A lot of the bigger processors went out of business. A lot the guys here had to tie their boats up and really struggle for a few years... I think it [the fishing community] used to be more competitive. ...People try to help each other out more now.(Al, #2)

Al also thought the competition decreased because the fishermen were meeting one another face to face at public hearings.

From the meetings, you get to know everybody, it has brought a lot of people together. You might talk to someone for years out there. You know his voice on the radio and have a picture in your mind what the person looks like. Then you see them at a meeting, all of a sudden you hear his voice and "Oh that's him..." That helps actually, get the fishermen to actually put faces, and say hi to each other. There could be conflicts over the radio, you don't know what the person looks like and this and that, when you see them in person, it softens it so much.(Al #3)

The competition over territory and gear can also become fierce. Four of the fishermen spoke directly to this. Chris did not speak about fierce territory conflicts that he was involved in, but did note that some fisheries can get violent. Chris also shared his frustration when the whole fleet is where he wants to shrimp, but he handles the conflict without getting angry.

James, Al, Mike and Miles spoke about fierce competition. James spoke of territory conflicts. Al spoke of lobstermen and fishermen conflicts of gear and territory. Mike spoke of territory conflicts with lobstermen as well. Miles spoke to gear conflicts and how it can impact a fishermen's business. Although they referred to the fierce side of competition, they always maintained the importance of camaraderie for success.

It [turf wars] happens. It is usually boat to boat. Like there is never an all out war, but sometimes it's like, some guys are more aggressive than others. Where it's just like "Come on, I was here first. Why are you crowding me out like this? I have been here. I am not gonna set on you why would you do that to me?" But some other people are like fucking, "I want this bottom now, fucking get lost." [They] surround your nets with their nets so that you don't catch anything... Imagine a yard away, one on this side and one on this side, just shut me off.

All you can do is sit back and go, "I am so fucking glad that I am not that much of a fucking jerk." Then you say, "I guess we gotta move, and you go find a better spot, where nobody's fishing." And the next thing you know, two weeks later they will follow you over there. Ultimately you know because they are not good fishermen. They gotta fucking rob your spot to catch fish, let them have it if they are that desperate. ... You see them around, there is all kinds of weird political conflicts that go on. (James #3)

Al discussed the territory competition between fishermen and lobstermen.

It's [lobstering] a different fishery. There is gear conflicts. That's why they don't like each other. A dragger can go through and drag up somebody's lobster gear. That lobsterman can lose thousands of dollars in a second, whereas the dragger it won't affect him whatsoever. It's bottom conflicts.

If a dragger wants to go there [where a lobsterman has his traps], he usually give him a heads up on the radio... "In a couple of days I want to go up in there, so can you move your gear." Then it becomes a game, you are being polite, and normally the guys will move it. You always get this guy, "Screw that." Either that or they are making a ton of money there, and they are willing to risk it. You might not get his traps but you are warning him, "I don't wanna catch traps." (Al, #2)

Mike also referred to the difficulties of sharing the ocean bottom with lobstermen.

There is lobster gear everywhere. You can try to get around. You can't [drag] inside of three miles, but there is more and more lobster gear out further and further. They have taken over the bottom. (Mike, #2)

Similar to the lobstermen and dragger conflict like Al and Mike described, gear and bottom conflicts can happen between draggers and gill-netters as well. Miles described how if a dragger tows into a gill-netter, it can really damage someone's business. These types of mistake are taken hard because they can impact someone's business, both because nets cost a lot of money and they miss days out at sea while they repair or replace a net. Miles discussed that the reason to have strong camaraderie is to be able to communicate and avoid problems.

[Camaraderie is important because] it's nice to get along with somebody that, instead of bickering with them. Like if I get my gillnets, and I see a dragger over here, and he doesn't know where my flags are, he might drag into them. Believe me, I have been dragged into a thousand times and it doesn't feel any better now than it did when I first experienced it. (Miles #1)

Among the fishing community there are also newcomers, the crew. Next I discuss how fishermen view crewmen as essential to keep the industry safe and sustainable into the future.

### *Crew*

Captains prefer to have crewmen who help them harvest fish, maintain the boat, and learn the business. The crew reduces the amount of work for a captain, thereby increasing the safety. Crewmen are the newcomers in the industry. Some of the crew will eventually evolve into old-timers, which is necessary for the industry to sustain the long term.

All five fishermen discussed how difficult it is to find crew because of drug-use, regulations, lack of money to pay crew, and the lack of available workforce. Those that have been fishing a while had an interest in mentoring fishermen. At the time of the interviews, it seemed that the New England fishermen in general were financially doing

better and were beginning to hire crewmen, but there were few available due to the full economy and the instability of the industry. The crewmen that they could find often had alcohol or drug related issues, which led to non-reliable sources of work.

When Miles returned to fishing after taking a year off, the fish populations appeared to be rebuilding and he was making enough money to hire crew and was eager to do so. However, his first crewman of the season, a friend of Miles, could not be relied upon because of his drinking problems. He hired another crewman, who was present during my observation, but Miles had to let him go due to his coming off heroin. Mike helped Miles from time to time because they don't have a crew.

Crew is hard to come by, they are all drunks and drug addicts, seems like it. They need the quick money... Fishing is sort of glamorous, but once they do it, they find out it is not so desirable, cause you gotta get up early in the morning. I have had some good deckhands. (Mike #2)

Good crew was desired but the availability was low, so good crew was in high demand. James was aware of his worth when he referred to his interactions with his captain.

My captain treats me really well, but my captain only treats me really well because I am worth it. That's the way it is with the fishing industry, everybody is on their own team... That's why I work with my captain because he recognizes the fact that he can't replace me. My captain can't just put an ad in the fucking paper, "Deckhand wanted." Good crew is definitely in demand, a lot of people are getting out [of the industry].(James #3)

Chris discussed how crew is short these days because of a strong economy and because the industry has not been economically robust.

There isn't the kids hanging around and getting in that there were when I was a kid hanging around the boats. There was lots of us kids, hanging around the waterfront, and dying to be a fishermen. There is no really young entries into the industry right here. Because of the state of affairs for the industry. The kids are more apt to pick away on the computers. The parents are probably going "Don't

you go hanging around those boats, there is no future if you go down there.”  
(Chris #3)

Along with a decrease in newcomers into the fishing community, the other reason crew is hard to come by more recently is because there is not enough money to pay crew due to increased regulations. Although Miles could afford to hire a crewmember, Chris did not feel he made enough money. In the wintertime when he shrimps he hires crew because he physically cannot do it alone, but during the summer he does hire anyone. He ideally would like to, but there is usually not enough money to pay an extra person. The year I interviewed him, he was having a lucrative year and felt that he could probably have afforded someone new but could not find anyone.

I fish this time of year by myself, due to the restrictions. They have got it down so low I can't really afford to take anyone sometime. That's mostly the reason, otherwise I would rather have the company. It gets lonely out there on a long day. In the wintertime I got a guy who goes shrimping (Chris, #1). ... You really have to have the extra help with shrimp, because it can be labor intensive sometimes. Plus the weather, it is safer, and I could go on and on.

I really could use the extra help right now to tell the truth, but labor force, just like everywhere, is kind of slim to begin with... Ideally I would like to have a guy with me year round, but lately, the last 6 or 8 years, with all these regs and stuff. It has been nice not to have the extra burden of making someone else a living. I just gotta worry about me for a while. But when things calm down here, hopefully find someone in the future to sustain year round, that will be nice. We used to do that all the time, but lately we had to change a little bit.  
(Chris #2)

Mike lamented on how he wished he could have crew. He blamed the regulations that have decreased his income so much that he couldn't afford to pay an extra person.

It is only the past couple of years I haven't [had crew] because of such limitations. I gotta find someone now, because in the winter, the weather's rough. It's hard to fish without, it's dangerous. In the summer it is flat so you, it is not as risky.

... I am going alone, as of recent years because of so many quotas, regulations, and restrictions, very limited, which is dangerous. We were only



allowed 400 pounds of cod this spring a day, so I can do it myself but I have to be careful too. It's hard to pay a guy, on limited amount of shrimping that they give us, limited everything. Groundfish and closed areas really affected me (Mike #1).

Al believed that there are no young people coming in because of the instability of the industry due to increased regulations and decreased fish populations.

Although lately with all the regulations, there is no young people coming in. In about 15 years from now, it will be really interesting because there will be a gap there of five or ten years. A bunch of people won't at this point come, the industry is on shaky grounds. As the fish come back and there is money to be made, in another five years from now, you will see younger people getting into it. (Al #2)

When there are young people coming into the business as crew, they need to be mentored and trained, just like the participants once were. Often times the newcomers who are hard workers and successful evolve into captains, old-timers. Chris and Miles were once newcomers and now they established captains who have mentored newcomers. Chris reflected upon himself as a mentor fisherman.

A couple guys [who began as crew end up captains]. One guy has been kind of working his way up the ladder. ... I have helped a couple of guys learn the business so to speak. I definitely had guys comment on that I have patience with trying to, in particular working with nets and stuff, teaching these guys to mend nets and so forth. A couple of guys who have commented on how they thought I was patient at doing that, teaching guys, and I know I have helped a couple of them out. (Chris, #3)

Miles also helped young crewmen learn how to commercially fish and then continue on to becoming captains.

Actually Greg, that kid started with us. Back in 1980 something, now he has his own boat, that happens a lot. That happened to another kid who went with us, Robby Smith, he got his own boat. Joe Taylor got his own boat starting with us. My nephew, "Uncle Miles please take me." "Alright." he started, he got his own boat. (Miles #2)

Crewmen have a crucial role in the community, where they contribute to both safety and to the future pool of fishing captains. All five participants were crewmen in

the beginning of their careers, and over time evolved into captains and in some cases mentors as well. Crewmen depended upon the community of fishermen to support them in growing into successful commercial fishermen. While the participants learned how to fish from the community members, they also learned the ecological and social processes, developed relationships, and personally and spiritually connected with the place. Participants learned from the old-timers, and other crew, the perspectives of “appropriate and acceptable” ways to harvest fish.

When four of the five participants came into fishing, there were few, if any, regulations on the commercial fishery. Therefore, the community members encouraged competition and catching the most fish. At this time, the knowledge and awareness of ecological processes were minimal, and the fishermen believed that the fish populations were infinite. As a result, the over-harvesting of fish was a result of the social context in which the participants initially learned what it meant to fish successfully.

However, the fish populations declined, partly due to overfishing. The government began to heavily regulate the harvesting of fish, in an effort to rebuild fish populations. The decline of fishing populations and the resulting governmental regulations, increased the participants learning new knowledge of the ecological and social processes. Although the fishermen may not outright state that the government is part of the community that supported them, they do recognize that the implementation of the regulations helped the fish populations return to more stable numbers and therefore sustaining the commercial fishing industry. As a result of learning from the government, they gained deeper knowledge of ecological and social processes, and this contributed to a transformation in their harvesting approaches.

The fishing community includes mentors and captains, friends, camaraderie, competition, and crew. Although competition existed between fishermen, what emerged from the data that camaraderie is important and valued. The camaraderie and frequent communication not only supports one another to find good fishing spots, but can help avoid territory and gear conflicts. The fishermen also share their knowledge and experiences, which constantly contributes to the ever-growing learning curve. Crew engage in this communication and learn quickly as they, over time, evolve into old-timers.

The fishermen are impacted heavily by the government. At times they feel supported by the government and at other times they feel neglected. However, either way, the government plays a large role in governing the fishermen's lives, how they fish, how they interact, and how they compete.

*The larger social context: Government who set regulations*

Historically, the fishing industry was a free for all, where everyone fished as much as they could to make the most money. This increased competition between the fishermen created a culture that encouraged the harvest of as many fish as possible. However, the result of this and possibly other human or natural causes, was that the fish populations declined. The government stepped in and began to set regulations to preserve the fish species. The fishermen have mixed opinions about the regulations. On one hand they feel that the regulations helped rebuild fish populations, which in turn supported the fishing industry. In addition, most of the fishermen thought that the regulations put the larger boats out of business and kept the smaller local fishermen

viable. On the other hand, they felt that the regulations had negatively affected them and that they did not have a voice in the decision making process.

Regulations impacted the community in that it changed who harvested fish, decreased the effort on the fish, decreased the economic gains, put people out of business, decreased freedom that once defined fishing, and impacted the competition that once existed. In this section, I first show how the participants felt about the regulations and the impact on the fishing community, primarily how it changed the type of fishermen who are in the community. Then I present the data that showed how the current fishermen did not feel empowered in the political decision making process.

The combination of many regulations at one time forced many people out of business. All the participants, except Mike, discussed how the regulations primarily put larger investor type boats out of business, supporting the local small fishermen. In the early eighties, foreign fishing vessels could no longer fish within the United States' ocean boundaries, 200 miles off shore. Wealthy investors who saw this as an economic opportunity bought boats, hired captains, and harvested a lot of fish. This introduced many American large boats into the fishing industry. The participants believed that not only did they themselves cause damage to the fishery, but that these larger boats caused the most damage on the fish populations. By the time I interviewed the fishermen, the investor types left the business because the regulations did not allow them to make a significant profit. Therefore, the people left in the industry were not making as much money as they once had, due to lower stocks and increased regulations. The people who remained in the industry had a deeper commitment to the fishing industry beyond simply making money.

Chris told me that he learned how to fish from “old-timers.” He said that because he learned from old-timers, he initially fished hard and was not ecologically aware. However, the old-timers taught Chris to have a deeper appreciation for the fishing industry, the whole community, and the way of life. Therefore, Chris fished for more reasons than simply making lot of money. Therefore, he remained in the industry after the increased regulations, unlike the big investor types.

23 years ago, there seemed to be some old-timers around, who I learned from. ...From my perspective, what I saw in through the eighties was that money was being made, so this big influx of investor fishermen types. They saw a few bucks being made, they get into it and when the crap hit the fan, they're out of it. You get that stand by core of us left. The Johnny come lateley's came and went. Now we're trying to rebuild it, hopefully for who is left. Hindsight is 20-20, there was a lot of effort. There was a ton of effort introduced to the industry in the eighty's and around there, it made a big impact on fisheries. (Chris, #2)

James believed that the regulations should ban non-owner-operated boats.

However, earlier he mentioned he wants to operate his captain's boat. These contradictions occur in everyone's lives and appear contradictory in the narratives as well.

As far as I am concerned, one of the biggest problems, was you have people with shitload of capitol buying huge boats... A lot of the people who own these boats have never fucking been on the ocean in their whole life, they never hauled gear, they never worked.

...If you made it the law that the owner had to operate the boat at least fifty percent of the time, then boom, all the big boats would be gone. All the real killing machines would be out of the picture. Because the big boats that catch a lot of fish. “Oh it is like blowing a 100 knots, fifty foot seas, who fucking cares, we are on a ninety foot boat, we will just bob around here till it chills out, we will put the nets out again.” If you made it so that every vessel had to be owner operated, then it would really cut out the really big money element in the fishery. (James #2)

Al agreed that the big boats were the main destroyers of the ocean. He differed in that he felt that the regulations were putting the small boats out of business and keeping the bigger boats in.

If you put the smaller boats out of business, then you have big boats left and those guys do the worst damage. Some of those big boats, the hundred footer... They have two crews, that boat will come in, the guys who have been out for seven days will stay on shore and take a break. They will have a whole other crew hop on that boat and go right back out.

Which would you rather have? From an environmentalist point of view, you would rather have the little boats fishing, cause they don't fish as hard. You get these big business boats who go out and they'll rape the ocean, they will make a lot of money doing it. They also kill the stocks, and unfortunately the government seems to like that better. They don't say they want that to happen, but that's what they do, they force the little guy out of business. (Al, #3)

Al felt that many people were forced out of the business as a result of too many regulations at once. Al also explained how processors got out of the business as well, hurting the whole industry.

We definitely needed some regulations. But unfortunately the way they did it was too hard, too fast. It put a lot of people out of business quick. Instead of, "Lets bring the fish back over twenty years so everybody can stay in business." Instead they cut it drastically and it put all those businesses right under.

Definitely needed regulations because eventually those businesses would have gone out of business because there wouldn't have been as much fish around. The populations was definitely depleting, so the regulations were good. I don't think any fishermen will go against that. It's just the approach that the government has taken and they are still taking. They try and do drastic things, and we try and tell them, you can't rebuild it over night. In five years from now, there might be so much codfish around and we think there will be, but there is nobody there to process them or to sell them... Nobodies gonna be able to catch them or use them. (Al #2)

The five fishermen participants did not all feel they had a strong voice in the decision making process. The regulations came from the government, impacted their lives tremendously, and yet when they tried to engage in making decisions, they did not feel heard. Miles, Chris and Mike all had been to meetings and felt that the government

already made their decisions and that it was a waste of time. Al was on the shrimp counsel and felt that this is an important way to have fishermen be heard, however he still felt that the scientists who helped dictate the law didn't listen to the fishermen. James felt that not only the government, but the whole community, does not notice nor regard the fishermen as much as they should.

Miles' attitude about the public hearings is that it is a waste of time because the government does not listen to the fishermen. Chris had a similar sentiment that the government did not listen to the fishermen's point of view.

I have been to a few [public hearings], not many. It seems so frustrating to little old me. The ones I have been to, it just has an overwhelming feeling. They don't care to listen. I have gotten really negative on bureaucracy and the whole thing. I shouldn't be, but I am. [I wait to hear the word and go with it] which is not advisable I am sure. I should be more involved in what I feel so passionately about...but, hey whatever (Chris #2).

It's not big deal for me to attend something like that. You don't sway what they've already decided. You just go listen to what the verdict is. (Chris #3)

Mike felt as though the government had also already made up their mind and won't listen, however he still attended them. He also thought that the government was beginning to listen more to fishermen and work with them more.

I been to quite a few of them. It seems like that have an idea in mind. It seems like they don't listen to fishermen, they don't believe us or something. They are starting, I think, to work with you, I don't know. (Mike #1)

Although Al has a whole different perspective because he was a member of a counsel that managed shrimp for the Northeast, he also felt that the government did not listen to the fishermen when regulating groundfish.

The codfish are already back and there is a lot of them out there that the scientists don't believe. Usually in the months of October November, in shore, there usually isn't much codfish around... But this fall here, there was this big pile of codfish right inshore for two months straight. People haven't seen that in ten years... but the scientists still don't believe that.

At a counsel meeting, a fisherman was just sitting in on a monkfish counsel meeting and ...all of a sudden, somebody mentioned the low recruitment of the stock of the codfish. He piped up, "You guys gotta be kidding me." He's like, "I can take my boat," he's in Newburyport in harbor, "I can go five miles from right where we are sitting, in a boat and load the boat up and almost fill it." "Oh no you can't do that..." They just don't believe it's there. (Al #3)

James spoke of how it's not just that the government that does not respond to the fishermen, but the community as a whole disregards the importance of fishermen in the community. James viewed fishermen as integral in food production and the culture of New England. His form of public involvement was to fill out the fishing survey for cash.

Five hundred bucks to fill out this fucking survey. I have two more pages to go. I have been drinking wine and chilling out. ...Right now it seems like the world just doesn't realize that people need to eat. We are gonna have to get the resource thing down. ...Nobody is even questioning where's my food coming from. ... I am filling out this fish survey, and they are like what are other questions should we need to be asking. I am always like, "We are the history and culture of this fucking region. We have been here longer than anybody else, have some fucking respect." It's like cut us down, save the fish of course, the fish are what it's all based on, but it's like, "See us, see us, we are here, and we are here." (James #3)

Regulations helped the fishermen by rebuilding the fish populations to a viable harvest number. The decline of the fish populations made the fishermen aware of their interdependent relationship with the fish populations. They learned more about the fish ecosystem and developed a deeper understanding of finite resources. The fishermen who remained in the fishing industry are in the industry for reasons beyond simply making money, and have illustrated a deep appreciation for commercial fishing as a way of life.

The local human community supported the participants to learn the ecological and social processes in a place, become aware of the relationship with the place, and



personally and spiritually connect with the place, leading to an attachment to the place. The human community members introduced the participants to the non-human community members, the ocean, it's inhabitants, and the local natural occurrences such as seasons and weather. Next I introduce their immersion into the non-human community.

The support that the fishermen experienced and felt was also from the non-human community. Commercial fishing is dependent on fish populations, weather, and other natural occurrences. Fishermen must learn about these occurrences in order to fish effectively. The participants learned quite a bit from their mentors and friends, but they also learned from trial and error and experimenting with the natural world.

In the following part of this section, I first describe their ecological knowledge and relationship with the ocean and fish populations. Then, I discuss their reliance on natural occurrences such as weather. Lastly, I show how their personal and spiritual connection to the non-human community developed over time. Regulations will often be intertwined in this discussion because at the time of the interviews, the fishing industry was heavily regulated.

#### *Ecological Knowledge of Fish: Location, Populations, Future Stocks*

Ecological knowledge of the non-human community is essential for a fisherman in order to become successful. The fishermen are concerned with knowing where to find fish, the availability of fish populations, and preserving viable future stocks. In this section I first present data that shows how the fishermen understand their dependence on fish locations. Then, I discuss their interdependent relationship with fish populations, and lastly discuss their concern for future stocks.

### *Location of Fish*

Commercial fishing is dependent upon harvesting fish. Fish live in an ocean ecosystem, which the fishermen come to depend upon. Therefore, the fishermen must learn from the ocean where the fish live, where they spawn, and how they move to different locations at different times of years. Seasons and weather impact the fish movement. Chris, Miles, James, Mike, and Al all spoke of their understanding of how the fish populations and natural migration affect their lives and where they fish on a daily basis.

[Where to fish] is just a daily thing and time of year. Time of year has a lot to do with it. [Because of] different depths, fish will be more abundant in different depths, depending on the time of year, depending on what the fish are doing. There's like one big migration, they basically come nearer towards shore to spawn. They start heading towards that goal in spring, and then in the summer time they are doing their thing, and then in the fall they're moving away again. It's just this general movement, in and out. (Chris, #2)

Miles shared what he knew about fish populations and spawning, and how they dictate where he fishes. He said he has to think like a cod in order to know where they will be spawning or eating. This type of thinking helps him find the fish.

James shared some his knowledge about the way fish move and how a good fisherman can predict where they might be. As crew, it did not sound like he really knew some ecological or biological reasons for why the fish were acting the way they were acting. But he was beginning to understand how his life changed as a result of the seasonal changes. He benefits as a gill-netter in the fall by having a large catch, and making a lot of money, which is his main goal.

They [the fish] hang out at certain times of the year ... Its low-pressure, the fish are up in the water column, they are on all the peaks and all on the hills. Then it's high-pressure, whoa sunny, so they drive down to the bottom. Nobody

knows, but the fish move and hang out in different spots, and it is so fucking spotty it will blow your mind.

...Fall is a really stellar time to go fishing... The fish are right where you want them to be, they are in your nets. All year you work on them and you chase them, but in the fall... I have no idea, the autumn is like the harvest time for fishing and the money is made. (James #3)

Area closures prevented Mike from fishing where likes to harvest a lot of fish, in the mud where the fish spawn. This reduced his income and he felt bitter about it. Mike discussed how good areas to fish are where the fish may be spawning.

In terms of regulations and areas where I have historically had good fishing, have been closed. In the spring the cods, flounders, dogs, and the codfish come in. April and May are closed and June in some areas, that was 50% of my income. Draggers catch codfish when they are out on the mud, when the dabs come in to spawn in those months, April, May, and June. Now [when we can go fish] there is a little bit in July, they have come in and do their thing and moved on. (Mike #1)

Al shared how the seasons affect what type of fish might be where, therefore dictating what type of equipment to use, dragging or gillnetting. Al also demonstrated knowing what months the fish come in to spawn in the mud and when they move off shore. The movement of fish dictates his life, whether he is staying in shore and dragging or going off shore and gillnetting. Like Mike, Al also talked about how the regulated rolling closures are scheduled due to when the fish spawn. Although the natural processes affect government decisions, and therefore affect fishermen's livelihoods during those months, Al agreed that these closures helped fish populations.

They come in to spawn. Drop their eggs, in this area, in April and May and somewhat of June. They come in real close to shore, and then they drop their eggs, and then they work themselves back off shore and move to different areas. That's why with all the regulations they have rolling closures... That helps protect some of the eggs. (Al #3)

All five fishermen are aware of where to find fish. The next ecological concern is the status of fish populations. The fish populations are impacted by many factors,

both natural and human. The fishermen discussed their awareness of these different factors and their own interdependence with the fish populations.

### *Fishermen's Interdependence with Fish Populations*

All five fishermen had a good sense of how the fish populations affected their livelihoods. The fishermen are dependent upon viable populations to harvest. At the time of the interviews, the fish populations were rebuilding as a result of the regulations and natural cycles. The reciprocating impacts of fishing on the fish populations and the impact of fish populations on the fishermen, depicted the interdependent relationship between humans and non-humans. In this section I introduce the data that suggested the participants' awareness of their relationship with the non-human world.

Chris, Miles, Mike and Al shared their thoughts about fish populations. In general there is consensus that the populations have gone up and down, however these cycles are natural and/ or human caused. Chris depicted how the human and fish are linked ecologically.

I have definitely seen a big decline in my career, and as ...of the last couple of years, I have seen signs of things coming back. I can remember when I started going part time in 76. There were zillions of fish around, and it's just not the case now. We definitely depleted the stocks, and I say we, because I been there, doing it myself. Try not to point the finger too much.

...The catches are definitely a lot less now than 20 years ago. I have seen a definite decline in most species of fish around here, I can't deny that. Hopefully they are on the rise again. We have seen some positive signs lately, right now at this particular moment I could show you more cod than you could imagine. (Chris, #2)

Miles shared his perception of how the fish populations have changed. At times he says there have been natural cycles and at other times he says that the fishermen affected the populations. He appeared conflicted on this issue.

I have seen the same [fish populations] thing year in and year out. It's just like the stocks, they go up and they go down. It's a cycle, we happen to get an influence of the Gulf Stream and the warm water. We are gonna have it showing more fish. If we don't get that because of the tides and whatever, moon, and everything, we don't get that, and the water stays cold, or visa versa. Cycles, its all it is. It takes a lot of time for one piece of area of water to cycle around, around the endless sea. ...I don't think it [the populations] really did [go down]. All the reports that I get, everybody's been throwing fish away. It would be one thing if you weren't catching it. (Miles, #3)

Later, Miles contradicted the idea that there had been no impact from fishing on the fish populations when he shared how he thought fishing had probably affected the decrease in fish populations. In addition, he believed that the decreased effort was positively affecting the fish stocks.

[Fishing] probably did [negatively effect the populations]. We went out this year, the same spot, [has] five boats. Now five boats of four hundred pounds, that's only 2000 pounds of cod they're gonna take off there per day, aside from the shit that they gun over. Theoretically, it should be only 2000 landed, and the rest of the fish, will do whatever they do.

In the past, it might have been four thousand a boat, took 25000 fish off the spot in one day, and then you went back the next day and the next day and the next day. ...Now we harvest two thousand of it, so the mass is gonna survive. Whereas before we were catching the mass. So if you think that way, its bound to get better. (Miles #3)

Mike argued that fishermen, other human activities, and natural cycles affected the fish populations. He took an ecological look at the entire marine ecosystem to explain how over-development and run-off pollution may affect populations as well.

I fish codfish and flounder in the spring. There used to be winter flounder in the fall, but they are extinct. They are just on a down cycle for some reason. I don't think its overfishing. Fishing might have contributed. ...The fish are definitely depleted, but we have seen the cod come back now from either a low level in their cycle or due to heavy fishing. Plus pollution and over-development along the coast, and the estuaries, everything ends up in the ocean. I think they point the finger at fishermen because they are more accessible to manage. (Mike #1)

...[The populations are] impacted certainly by pollution and fishing. Over development, on the shore, that might have something to do with it. There is houses on every little river and creek. ...They fill in all the wetlands, they put

houses where they break up the natural flow of the water... They are shutting off little tributaries and estuaries where the fish go up and spawn...

A lot of the ocean fish come up into great bay and the little creeks and that's where the pollutants are going into first... Everything ends up in the ocean... The pollution from people [who] fertilize their lawn, anything. They say its from the farmers, there aren't any farmers around here anymore, hardly. (Mike #2)

Al shared how he became aware of the declined populations. He knew that if there were no fish there would be no business, so he expressed explicitly his interested in maintaining future stock.

Before 1992, the stocks were getting depleted... everybody [including fishermen] agreed that there needed some type of regulations. We want to preserve the future of the fish, because without them, we are out of business. Certainly you don't want to get the stocks down that low where they don't recover either, you don't want to wipe out a stock...I think the stocks have rebounded. (Al, #1)

The fishermen believe that the fish populations are returning due to reduced fishing effort and natural cycles. Their concern for fish populations mainly stemmed in concern for viable future stocks of the fish. The five participants in this study have a commitment to the fishing industry because of the history and love for it, but they would like to see the industry economically sustain itself, which is dependent upon the health of future stocks.

### *Future Fishing Stocks*

Chris, Miles, Mike, and Al are concerned about viable future stocks. Chris spoke about sustainable fish harvests.

They have size limits on all the fish we are able to keep. When I say juvenile fish, say sub-legal fish. Sometimes there's big concentrations of those in certain areas. There are other [fishermen] who wouldn't necessarily care about that if they're getting legal fish with them. I have heard stories jettisoning 1000's of pound of sub-legal fish just to get a few hundred pounds of keepable fish. To me that's out of question.

It just doesn't make sense to me, to kill 1000's of pounds of sub-legal fish for a very short return. I must put a higher monetary price tag on the destruction

of lots of future stock. That's a way to put it, unless maybe there were big returns to be made, I might reconsider. I always seem to have the future in the back of my mind somewhere. (Chris #2)

Future stocks are important to the continuation of the fishing industry. Chris spoke of how different regulations have helped populations of fish return. One example of regulations that help the future stocks is the introduction of the Nordmore grate. Miles shared how this grate prevents the killing of young fish, protecting the future stock.

The Nordmore grate is a shrimp grate, it looks like a series of bars. The shrimp go through the bars, and the fish hit the bars and go up to the escape net at the top. We don't get any fish, because you are only towing a small mesh. Its only a two inch diamond, so once something goes in your net, certainly it won't go out, so now they devised an escape. So all the fish are living. With that grate, we have saved all that populations of small whiting, small dubs, everything that we were killing before. ...You got your major population being released... Fishery is gonna rebuild itself. (Miles, #1)

Miles shared that he is committed to using big mesh gear, in an effort to only harvest older fish and reduce by-catch. The bigger mesh lets the younger fish through and only catches the larger fish. Although there are mesh size regulations, he uses a slightly larger mesh size because of his personal commitment to preserve the future stocks, "I rather kill the big ones and let the little ones grow up."

Al was on the counsel that managed the shrimp fishery for future stocks. He shared why the biological processes of shrimp are so difficult to manage. These processes impact the winter business, which is when the Groundfishermen go shrimping.

Shrimp is very tricky to regulate because their lifespan. They start out as males, they change to females in their second or third year of life, and then in their third or fourth year of life, they drop eggs and their fifth or sixth year they really don't drop too many eggs. Their lifespan is only five to six years, that's as much as they live. It's hard to regulate a species when they only live six years. ...There

seems to be quite an abundance of shrimp out there, which is good for the future. ... You certainly don't want to catch the small ones, because that is the future stock. (A1, #2)

All five fishermen discussed their relationship with the non-human community of fish populations and how the availability of fish impacts their lives. They referred to how fish populations determine where they will go fishing on a daily basis and how they determine economic viability of commercial fishing. The fishermen needed to know the life cycles of the fish, how they move, where they go, and what impacts their populations. The processes determined what type of fishing the fishermen will do, where they will go, and how often they go. There are other natural occurrences that happen that affect their livelihoods, such as weather, tides, and seasons. Their dependence on natural occurrences of the non-human community makes fishing adventurous, but also difficult.

#### *Weather, Tides and Seasons dictate the lives of the Fishermen*

The commercial fishing way of life is defined by their dependency on natural occurrences. This has already been described in depth by their ecological relationship with fish populations. However, the participants were also dependent on the weather, tides and seasons. All five mentioned how their daily lives were dictated by weather. They go out if the weather is good, and they stay in if it is bad, determining their economic gains for the season. In addition, weather impacts fish populations, for example, shrimp's need cold water for the younger male shrimp to detach from older female shrimp.



James described how weather affects commercial fishermen's livelihoods, especially wind. James shares his knowledge of wind and his experience of how it can affect working fishing gear as he describes why fishing when it is windy is unsafe.

Take the current operation, it has been blowing easterly for 48 hours now. The seas get bigger faster on an easterly breeze because there is something called fetch and that basically takes into account the distance that the wind blows over the ocean, where there is nothing to block the breeze. As opposed to if it is coming from the west, it is coming off the land, so the seas, generally don't get very large. Large meaning big big big seas. As the wind blows, the more open space, the waves get bigger and bigger and bigger, with more distance. When it blows westerly, it is more like a choppy thing.

So it has been blowing east for a couple of days, generally, 30 knots of wind we don't go because a) it is massively unpleasant, and b) it presents certain obvious dangers. Basically, we don't go when it is shitty. 9 times out of 10, it is not like the oceans so raging it is gonna sink the boat, I am sure it potentially can get so shitty that that would be an issue. It is more like you can't work the gear.

So that is the issue today, the gig is, "Wait." We have to get out there because the net has been in the water... It is not good to let them go for more than four or five days, and we have stuff out there that has been in the water almost nine days tomorrow because of the weather. Because of the weather, the last couple of times we had to go home early because the wind in the afternoon got so strong we could not even finish hauling. (James #2)

Chris discussed how their whole lives are affected by weather.

[I go out every day] weather permitting (Chris #1). ...Weather is the biggest factor with us [fishermen]. I do prepare a little bit in the evenings watching the weather. I have an idea if the days gonna be fishable. (Chris, #2)

Mike and Miles also discussed how weather impacted their decision to go out fishing, primarily with regard to wind. Because their lives were so dependent upon weather, they could not plan ahead too much. This unpredictability becomes part of the fishermen's way of life because they cannot plan ahead due to the unpredictable weather.

Al discussed how weather impacted when fishermen left and come in, in turn impacting his life as the co-op manager. He was in charge of moving the fish from the

docks to the buyers. If fish come in due to weather, he needs to be there to sell it right then and there, because fish is perishable.

You can spend 70-80 hours a week doing this and never be done. I try to take a couple of days off, and its just tough to plan in the fishing industry. Like last weekend you try and go away with the family and all of a sudden a storm comes up. I've got seven trip boats coming in, with thirty thousand or forty thousand pounds of fish that has to be sold. I certainly can't go away. So things like that pop up all the time so it makes it tough. (A1, #1)

Natural occurrences impact the fishermen's lives. Because of this, the fishermen do not view fishing as a job but a way of life. Over time, the participants described a dependent relationship with the natural world, where they began to feel attached to the fishing industry and being on the ocean. The participants described this relationship in personal terms, and at times with a spiritual reference.

#### *A Personal and Spiritual Relationship with the Natural World*

The participants began with initial preferences, to be outdoors, to make money and to be independent and adventurous. These preferences were enacted by each of the participants in the form of commercial fishing. The human and non- human community introduced the participants to fishing and taught them to become experienced fishermen. The enactment of their preferences, along with their enmeshment with the human and non-human community, motivate the fishermen to stay in the profession, given the hardship of the profession.

The fishermen's sense of place was defined by their relationships with the human and non-human community. They were interdependent with the people, fish, weather, and ocean. These personal relationship took time to take root and to develop. Their emotionally-felt relationship was based in appreciation of nature, an awareness of

their interdependency with the ocean and fish, and a more spiritual, non-explanatory reason of feeling like “The ocean is in their blood.”

The five fishermen expressed an ever-increasing appreciation for the natural world and for the excitement by what one can see and experience on the sea. Earlier in Miles narrative, he described the time he caught a tuna. He shared how he felt excitement and appreciation because he gets to see natural phenomena that people on land never get to see. This kind of appreciation is transformed into a spiritual connection with the ocean, where the fishermen could not explain it clearly, but they expressed it simply. All five fishermen used the phrase, “It’s in the blood,” to refer to how the ocean becomes a part of them and they can’t leave the fishing industry.

It is in the blood ...Seeing shit like that [a large tuna], that is why I am out here who else would see something like that, you really get the adrenaline and everything. (Miles, #1)

When I went fishing with Miles, he was talking about how much he loved fishing and appreciates the way of life. He asked me if I could feel “it,” the feeling of belonging out on the ocean. He did not put words to it, only inhaled and exhaled and spread his arms out to the ocean landscape as he smiled contently, as if everyone must feel “it.”

In addition, Miles spoke of how he spiritually connects with the fish to try and find fish. He said that in order to find cod, he has to think like a cod. He tried to put himself into the mind of being an ocean creature to decide where to fish on a given day. He was able to do this as a result of years of experience.

Like Miles, James spoke of his appreciation for the ocean.

It is really special, when you go out there. For example, we were at a place about 120 miles off shore. If there is an astronomical low tide you can actually

see the seaweed, hundred miles off shore... Then there are fucking schools of porpoises, like 150 to 200 porpoises. Looking 360 degrees around a boat and have the water absolutely boiling with these mammals that just aren't afraid of you, just doing their own thing. Or a humpback, I have seen whales whose side flippers are as long as boats that I have been on, just rolling around and you are just like, "Wow, this is my office." ...Oh it is so special. And you really feel gifted because nobody gets to do this shit... You just feel so privileged to see the beauty of it. (James #1)

James spoke of his relationship with the ocean in a language, that denotes a spiritual entity that supports fishermen.

The ocean is not your friend. If she is nice to you, and it is flat ass calm and you load the boat, you know it is coming. The ocean is incredibly generous but it comes at wicked price. There is definitely a sense of real love and respect for it. Some days it is really great and easy, but you know it is coming. There is almost a sense that you get a favor, its like anything else in life. I don't know if I would call it Karma or whatever. When you need it there is that big load of fish, and when you got money in the bank, those are the days that you have crappy days. It is almost like it takes care of ya. It makes everything else seem really less important, I mean everything. ...It is a lot like a drug. ...It sounds stupid, but people really do fall in love with the ocean, it is pretty easy, it happens to some people. (James #1)

James shared how this relationship with the ocean is something that he comes to depend upon and it is part of what makes him feel whole enough to come to land and live a more sane life.

It [the ocean] is like sanity. ... You really start to depend on it, it is an incredible release and you come home and you feel so complete. Going this last trip I took, was the best thing I could have done for my relationship. We suffer, if I don't go fishing for a few weeks, I am not really easy to get along with. (James, #1)

Chris shared his feelings when he is on the ocean and how he felt spiritually about his relationship with the ocean. Chris felt lucky to have found commercial fishing at age eight, and at age forty, he is still happy with his commercial fishing way of life.

It is so pacifying to get out there, on most days. To me, this is what I do to vent, it is so incredible. The feeling sometimes to be out there, morning especially, "Wow." There is something, it's the ocean, calming factor to it ... It is a pretty big powerful thing. It has its days where he can be nasty or nice. Some of the

mornings are absolutely beautiful, sunrises, it is kind of like "Wow, look at this," you know. Pacifying effect I guess I don't know. (Chris #1)

[There is a spiritual component to fishing] big time. But I don't know if I could describe what I mean by that. ...It's pretty powerful stuff out there on the ocean and I don't know what it is. Powerful for me, serenity in my head. It is probably so humbling everyday to go out and see the beauty and the power of it all, it does something for me spiritually for sure. What, I don't know...

[Fishing is] in my blood, man, I gotta have some sort of relationship with it. I mean, if you took it away from me, I would want it like if I lost a pet, or worse, I definitely think I would have withdrawal symptoms and mourn it. I definitely have to have some sort of relationship with it, maybe brings us back to the spiritual question. Pretty powerful thing in my life.(Chris #3)

Al spoke of how he always been drawn to the ocean, but because of the amount of time spent on the ocean as a commercial fishermen, he is even more connected to it. He described the temporal aspect of how over time, the relationship deepens and the ocean gets deeper into your blood.

From the fishermen standpoint, even when I was fishing, honestly going out on the water every day seeing the sunrise and sunset, that's fun enough in itself. Even as a fishermen, you make your money off the fishing, I love nature and animals anyways so just being out there, its good enough some days. (Al, #1)

...When you are out on the ocean, you are always drawn to it. When you actually start to work right on the water and outdoors and you get through the different season, I don't really know why it gets in your blood, it just does. (Al, #3)

Mike said that because he sees the ocean change every day, the ocean becomes increasingly in his blood. Although Mike was not verbal, he referred to his attraction and love for the ocean.

I have not always been that sure about it [commercial fishing], but it gets in your blood... You kind of evolve into it, I suppose (Mikes #1). You never stay in fishing just for the money, you have to like fishing or it won't work out for you. It is something that you, the successful fishermen love it. Fishermen still strive for that independent free spirited feeling. I am very content out there. I think [more so than on land]. It is just the feeling of being in the right place. (Mike #2)

It [the ocean] is thrilling, its back to nature, the real world, the natural world. It seems like its something different everyday, if you are alert, I suppose. [The ocean] never ceases to amaze me. Any little thing sometimes... I don't know what to say. It is just something different to see the ocean and the sky

every day, it seems a little different. No day is exactly like, you know visually, or what you might catch, circumstances. (Mike, #1)

All five fishermen described their relationship and appreciation for the ocean, which led to the ocean becoming part of who they are: “It is in my blood.” Time spent with the non-human community of the ocean contributed to the deepened relationships and dependency on the ocean.

The fishermen developed a sense of place within the context of the human and non-human community. These relationships supported the participants to enact their preferences in the form of commercial fishing. As a result of their immersion in the fishing community, they developed place attachment, constructed ecological and social knowledge of the place, and developed an ecological and social identity with the place. The development of their sense of place in a social context contributed to the fishermen’s ethical disposition toward the place.

#### *A seamless way of life: From Sense of Place to Environmental Ethics*

Through the participants’ immersion into the commercial fishing community, the fishermen were supported to evolve into successful fishermen. As they developed and sustained a sense of place in the social context of commercial fishing, their commitment to the commercial fishing way of life evolved, along with ethical consideration for their role in sustaining the commercial fishing industry.

#### *Commitment to the Commercial Fishing Way of Life*

All five fishermen agreed that their relationship with the ocean keeps them committed to the commercial fishing way of life. As a result of the regulations and decreased economic gain, the only fishermen who remained in the fishing industry, including the participants in this study, had a deeper commitment to the commercial

fishing way of life, rather than making money. The participants attributed this commitment to the old-timers they learned commercial fishing from, who were “salty and were defined as part of the ocean” (James, interview #3).

The participants’ relationship with the ocean informed their commitment to the industry because they could be on the ocean every day, weather permitting. In addition, they could still make a decent living, and maintain their independence by owning a business. In this section, I further describe their commitment to the way of life.

Part of the commercial fishing way of life is living every day on the ocean, dependent on the weather and the ocean’s ecology. Chris described how fishing is how he lives his life, and that it does not feel like a “job.”

I don't do too much other than work. I don't even consider it work, it is a way of life. Other than what I do, I don't like calling it work. It's just what I do. I am so far removed from a forty hour workweek, you have no idea (Chris #1).

I am very grateful that I am able to do what I am able to do, and I realize that. Especially as I get older it is like, “Wow,” there are so many people out there who hate what they do ... People in a forty-hour work week seem to count for every single hour they do. Time and what I do has never come up. I scare myself when I try to figure out how much I make per hour. Time is not a factor, it is just what I do.

... I have done a couple of part time work in the winter time plowing snow for the last seven or eight years. So I've got a little bit of a feel for people that put in a forty-fifty hour work week. To live your life around a job that you have to be there at this time, and you know you are gonna get out at this time on which days. It is so different than what I do. I am glad I do what I do. (Chris #1)

Mike agreed that he does not like working on land, because of lack of money and lack of freedom.

Last year, I went for the first time in fifteen years, got a job off the boat because of the cod limit which was 30 pounds. I didn't like that much, I like working for myself. I worked as a carpenter and a masons help. I like carpentry woodworking but not as well as fishing, I am not real experienced so, couldn't make a lot of money, like I have fishing. Basically, work all day for nothing. (Mike #1)

During the interviews, Mike complained about how he cannot make enough money in fishing because of the increased regulations. However, he did not leave the industry because over time he had developed a commitment to commercial fishing.

It gets in your blood. Now I have done it so long, I don't know how to do anything else. ...I like fishing so much, I can still make a living. It's not great, it is barely a living really at this point. (Mike, #1)

As mentioned earlier in Miles' relationship with the ocean, he felt like he could make enough money in one day than in a whole week on land. This of course is not solely why he loves it, but it is part of the way of life that he appreciates. Al appreciated being outdoors on the ocean, while simultaneously making a living. During my third interview with Al, he had retired his position as co-op manager to return to commercial fishing, primarily for the freedom of running his own business.

I do enjoy being the manager, but I enjoy fishing. I enjoy fishing, and I will certainly enjoy having more time. [When I no longer manage the co-op and commercially fish and] if I want to take a weekend off and go away without hearing from anybody then I will. That's the thing, even a few weeks ago my three years old boy, we want to get him on skis and all of a sudden I got six trip boats come in on a weekend I couldn't go. That's a bummer, and I am at that point this isn't worth it. I would rather be with my kid, that's what it comes down to. (Al, #3)

James loves the way of life, particularly because he made a lot of money working hard, the adventure, and during his time off he explores art. This balance of working in a lucrative business and then being free to be creative is the part of what he loves about this way of life.

I didn't work for two months this year. I wrote, last year I made prints and made money off my show. I could like to do another job, but ...it has to be something I am passionate about. Fishing has set a certain standard, I worked eight months I made 42000...the ocean, there is something about it, it really goes right through you...(James, #2)



The participants love the way of life of commercial fishing: being free, being outdoors, being on the ocean, and running a business. This love inspired their deep commitment to remain in the commercial fishing industry. As a result, they have developed a commitment to fish sustainably and responsibly to maintain the commercial fishing industry. This commitment has developed into ethical consideration for the place and the industry.

#### *Evolved Ethical Consideration for a Sustainable Commercial Fishing Industry*

The decline of fish populations and increased regulations contributed to the participants' awareness of the finiteness of the ecosystem they depended upon. As a result, the fishermen developed an increased awareness of their own actions, and tried to match their actions with their own ethical beliefs and values. These came into conflict at times, as they do in any profession and in anybody's way of life, and the fishermen had to ethically consider what the next right thing to do was. They did not always make "environmentally responsible" decisions, but sometimes they did, more so than in the past. In this section, I show the data that suggests that the participants had developed an increased knowledge of the local ecosystem, leading to an increased appreciation for the ecosystem and therefore, and increased ethical consideration to fishing sustainably so that the commercial industry sustains over the long term. I also demonstrate how they did not always act upon what they believed was "the right thing to do."

Chris expressed how he has changed over time to fish more responsibly. Time had impacted his sense of place in that he developed a deep relationship with the place, he knows the place, and he knows the limits of the place. As a result of the low

populations, and the regulations changing his life, he became increasingly aware of his need fish responsibly.

I don't know at what point I went from thinking the ocean was an unlimited resource that we could take, to the point where I realized that hey we gotta pay attention and look out for our resource here. At some point, because I remember, definitely when I was younger it was kind of like, "Lets just go take, take, take. There is no problem, it's unlimited." But then somewhere along the line I was like, "We gotta be responsible in general as a whole." So here we are, trying to save the industry and keep people in it, to an extent. Gotta have the fishermen to have a commercial fishery. Here we are trying to be responsible.

I overall am more conscious of what I put into the ocean, as far as garbage. When I started fishing, 22 years ago, we never brought any garbage in. Just toss it. I think how far in general I have come on that respect, more conscious how we treat our ocean.

I definitely want to learn how to fish responsibly. I want a sustainable fishery, and that's all part of caring about my future certainly, right, care about the ocean, caring about the things in it. Learn how to do things responsibly. So pollution, that's the biggest thing. Both responsible as far as my part of the ecology and then try to develop a sustainable way of fisheries for us in this area. (Chris #3)

During my observation with Miles and from his interviews, he demonstrated concern for what he threw overboard and made sure to show me his garbage can, which he said he never use to have. He also showed me how he fixed his engine so that he does not leak as much fuel into the ocean.

James shared his ecological concern for the ocean and his conflicting actions and values.

This is a problem you are going to run into in fishing... I love the ocean. But sometimes, there is no trashcan, you are out there for six days, you are busting into the package of the hamburger... This last trip I was on, it was rough, it blew the whole time, there were barrels and shit on deck just chasing us all day because the boats getting pitched everywhere. There was one particular barrel of waste oil, and this broke my heart. It was chasing the captain around and he just picks the barrel of waste oil, and "this fucking thing" see ya... Fishing is going to throw you for a loop because we all do love the ocean a lot, but a lot of times we don't act like it.

...In the winter I gotta free lance, I want to be on the boat that makes the most money. I am not sitting back saying, "Their bilge has been pumping an

awful lot of diesel fuel lately, I don't know if I really agree with that..." Shit, if they came in 30,000 last trip you can bet I want to be on that boat.

People have really traditionally approached this fishery like it is a gold mine that never runs out, just strip mining it. It is definitely creepy. There is not one person who will tell you they don't love the sea and love being out on a boat and that it isn't beautiful. (James #1)

Al described his conflict between fishing hard and fishing ecologically responsibly.

[I fish hard and responsibly because] if you think you made enough money in the day, if it's enough to satisfy you, it's time to go home. But in the same respect if you don't think you are, you are gonna sit there that much longer. A greedy person would be like, "Yup, keep on going over here." In a way you know when to call it quits.

... You would rather have the guy catching the dollar shrimp because it is bigger shrimp, than the guy catching the 50-cent shrimp because he is catching twice as many. He is making the same amount of money, but that's bad mentality. I wouldn't do that. I certainly wouldn't want to be one of those people, but there are some of those out there, who are working on volume, "I can make up on volume." That's a bad way to think. Thank god, also some guys who, "I won't fish for that small stuff, that's crazy no matter how much you can catch, because it would hurt the stocks, that's definite." Your killing your future, and that's not smart. That's what's happening right now with shrimping, and that's definitely a moral issue, I wouldn't do that. (Al, #3)

Killing the future stocks is a moral issue that many of the fishermen face. The year before the interviews, one of the regulations decreased the trip limit to thirty pounds of cod. The government encouraged fishermen to target different species of fish. However, it was impossible to catch thirty pounds even when a fishermen targeted different fish. As a result, there were tons of cod by-catch caught and thrown overboard dead. All five fishermen feeling ethically and morally bad about fishing during that year because of negative impacts on the fish populations through a blatant waste of a resource. Mike and Miles could not condone killing fish for a small catch limit, so they did not go fishing at all during that year.

[I didn't go out] because it wasn't worth it. Would not pay for fuel to go get 30 pounds of cod. I didn't have the mentality for it: go out and throw the cod over, which are mostly dead. To catch the flounder, you would have to kill cod to catch the flounder, it didn't make sense to me. (Mike #1)

Miles also decided not to fish when the catch limits were so low. Miles was disgusted by it and also felt that all fishermen should be working to preserving the fishery, but they don't all do it because of their own financial needs, He believes that fishermen with greater financial overhead fish harder, leading to less responsible fishing practices.

Chris also was bothered by the thirty-pound catch limit, although he still went out fishing.

[The discards are] very bothersome, especially last year. ... You're gonna run into situations with codfish now, people have to literally, myself included, throw back sometimes hundreds of pounds of them. Throw away, otherwise you risk going to jail, totally wasted. That will mess with your head. It goes right against the grain, it is not what we do here. I want to fish responsibly, and that isn't responsibly, some of it is pretty ludicrous.

I am in this for a livelihood and I respect the whole, ocean and the industry, I try to respect everything around me. Throwing fish totally wasted over the side, dead, that isn't respect for anything, for nobody. It just isn't right. It goes totally against my grain. (Chris #1)

Essentially the values of the fishermen can become in conflict: caring for the ocean and needing to make a living. The participants came to care for the ocean through experiencing care and support from the local human and non-human community. Through this felt support, they developed a sense of place which led to an obligation to preserve the way of life, the fishery, and the associated industry. As a result of feeling cared for, they developed an obligation to reciprocate the care. However, they could no always act on this obligation, especially when the fishermen

had to make ethical decisions between protecting and caring for the ocean and their personal economic needs.

In addition, the fishermen also experienced how intricately tied their lives are with the ocean and the health of the ocean. Therefore, in order to preserve their livelihood and other fishermen's way of life, they needed to consider the health of future stocks. For some of the fishermen, this ethical consideration evolved into choosing not to fish when they knew their actions would be destructive. For the others, they were aware of the conflicts, and tried to find alternative solutions.

### *Conclusion*

The local human and non-human community supported and shaped the participants ability to enact their preferences in the form of commercial fishing. The participants became immersed in the commercial fishing community and developed a sense of place: place attachment, ecological and social knowledge, and ecological and social identity. In addition, they developed a spiritual perception of being part of the natural world, allowing them to feel supported and cared for by the non-human world.

As they developed and sustained a sense of place, they developed a commitment to the profession and the way of life. This commitment evolved into an ethical disposition to preserve the fish populations for the sustainability of the fishing industry. Their commitment to the way of life and the industry was due to their relationship with the commercial fishing community, which initially supported them. This initial support yielded a felt obligation to care for the place, a care ethic. Their evolved ethical considerations did not always lead to changed actions, but it did lead to mindful living and the possibility of linking actions with values.

## **CHAPTER FOUR**

### **INTERPRETATION**

#### **Assessing the Received View of Sense of Place for Environmental Education**

In this chapter I restate the received framework of sense of place. I interpret the results within the context of communities of practice and moral theory literature. Sense of place is a concept that has been increasingly integrated throughout environmental education (EE) curricula as a way to facilitate environmentally responsible behavior. The integration of sense of place into EE curricula has been based upon a view of sense of place that is supported by very little empirical research, either about the way in which sense of place is developed, or about how it affects the day-to-day lives and actions of individuals. The received view states that when a person has a sense of place, they act environmentally responsible toward the place. This view, as shown by my research, presents an over-simplified model of sense of place as it exists in its complexities in real life.

The received framework of sense of place is comprised of three components: place attachment, ecological knowledge and identity, and public involvement. Place attachment refers to the emotional bond that can exist between an individual and a particular environment (Tuan, 1974). Ecological knowledge includes knowing the processes that created and sustain the local ecological community, and being aware of how these processes interact together as a system.

The definition of the self within the context of the place is referred to as one's ecological identity (Thomashow, 1996). Public involvement and environmentally responsible behavior refer to the notion that people can live socially and politically within the confines of the local ecosystem (Barry, 1995; Haas & Nachtigal, 1998; Kemmis, 1990; Kemmis, 1998; McTaggart, 1993; Snyder, 1990; Tomashow, 1995). Within this framework is the implicit assumption that if one has a sense of place, one will act environmentally responsibly.

Questioning the received framework instigated the purpose of this study, to develop and strengthen the conceptual and empirical foundations of sense of place, and to determine if and how it is linked to environmentally responsible behavior in an effort to inform environmental educators. The examination of land practitioners' sense of place and their associated behaviors provides applicable insights for environmental educators.

My research of land practitioner's sense of place makes this concept "come alive," and provides an integrated conceptual understanding and a holistic view of sense of place. The results indicate that aspects of the existing conceptual framework of sense of place, such as place attachment, ecological knowledge, and public involvement, do in fact describe the relationship between people and place. The results suggest that we need to give more attention to a) social context and b) the role of moral theory. This means that we need to look at a) communities of practice and b) both care theory and deep ecology. These results suggest that the current framework should be expanded to emphasize the role of human and non-

human communities: both the development of a sense of place and the learning of environmentally responsible behavior must be situated within a social context.

This study lends support to the view that for sense of place to move people to ethical action, it is crucial for them to recognize and to participate in, community support and care.

The received view of sense of place is inadequate because it does not give sufficient attention to the social context within which sense of place is developed. To understand sense of place and how it is linked to environmentally responsible behavior, we need two complementary theoretical additions. The first is the community of practice literature (Fontaine, 2001; Kerka, 1997; Lave and Wenger, 1991; Lave, 1993; Wenger, 2001; Wilson, 2000) to understand how sense of place is developed and sustained in a social context. The second is a moral theory for environmental ethics that embraces a care ethic (Noddings, 1984) and deep ecology (Cheney, 1999; Hasdeen, 2001; Leopold, 1966; Naess, 1972) to understand the ethical dimensions of community membership. Next I interpret the results within the community of practice literature. Following that section, I interpret the results within the care ethic and within the deep ecology and environmental ethics literatures.

### **Communities of Practice as a Conceptual and Empirical Foundation for Sense of Place**

Community of practice literature contributes to the strengthening of the conceptual and empirical foundations of sense of place. It begins to interpret the link between sense of place and environmentally responsible behavior. In this



section I first define communities of practice. Then I interpret the data through the application of the communities of practice elements. I begin with the communities of practice element of “induction into a community of practice,” and apply it to the data where the community supported the participants’ initial preferences. Then I continue with “differentiated roles of community members [i.e. newcomer to old-timer] and the motivation to progress through these roles.” I then show how “communities of practice is a socially situated learning community, where participation in the community shapes both cognitive and affective understanding.” Lastly, I discuss how “communities of practice theory shapes one’s dispositions and ethics toward a place.” For each element of communities of practice, I provide an explanation and an example or two from the data.

Each element of communities of practice coincides with the development of the participants’ sense of place, socially contextualizing the evolution of place attachment, the construction of ecological knowledge and identity, and the motivation for public involvement.

### *Defining Communities of Practice*

A community of practice refers to the groups of people that comprise the social context in which the learning of a specific practice is situated (i.e. organic farming and commercial fishing) (Chaiklin & Lave, 1993; Lave & Wenger, 1991). In my study, the social context includes the community that supported and cared for the participants, including friends, family, other farmers and fishermen,

customers, and the government. This social embeddedness of the participants' experience reinforces the cognitive theory that learning is socially situated.

Lave and Wenger (1991) discuss "learning as a situated activity" (p.29). They develop the term legitimate peripheral participation (LPP) as a way to characterize how newcomers enter a community of practice. The purpose of LPP is to emphasize that "learners inevitably participate in communities of practitioners and that the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community... The sociocultural process... subsumes, the learning of knowledgeable skills" (p.29).

Lave (1993) makes it clear that situated learning is a theory that does not separate the mind from the world. "Theories of situated activity do not separate action, thought, feeling, and value and their collective, cultural-historical forms of located, interested, conflictual, meaningful activity" (p.7). The rest of this section discusses how situated learning within a community of practice contributes to the conceptual and empirical understanding of how sense of place is developed and sustained. The community of practice literature only begins to help interpret how sense of place is linked to environmentally responsible behavior. This link is further developed in the following moral theory section.

In my study, the organic farming and commercial fishing communities comprised the social context where the participants situated their learning. The members of these communities differ for the different participants, but they include other farmers, other fishermen, families, friends, customers, and the

government. For example, Ella learned how to organically farm from her apprenticeships in Australia. She commented on how the old-timers, particularly the man who reminded her of her grandfather, taught her about permaculture through immersing her in the practice and the way of life. She worked all day in the orchards under the guidance of the farm owner. During rest periods the old man helped her key out tropical tree species native to the land, and at night she read permaculture books in the farmhouse after dinner. In addition, the farmer taught her about the associated activism that he was involved with the preserve the native tropical forests, engaging her in public involvement as well. Ella's relationship with this old man was one of a newcomer and old-timer in a community of practice. Ella learned about permaculture and the farming way of life through the immersion with this man's farm and life.

*Induction into a Community of Practice: Supporting Initial Preferences*

The community encouraged and supported the participants to enact their initial preferences within the social context of the local community of practice, in this case, either organic farming or commercial fishing. The evolution of the participants' place attachment, knowledge, and public involvement came as a result of the immersion into the supportive community of practice. In this section I depict how the community supported the participants first to come to the New England state, and then to begin organic farming or commercial fishing.

The participants initially came to the state with the encouragement of family and/or friends. Then the community further encouraged and attracted them to stay in the place. Families influenced the participants by raising their children

in the region. Even if the participant left the region, he or she returned because he or she wanted to be close to his or her family. Friends influenced the participants by encouraging them to come to the region and by providing a community of friendship that supported the participant emotionally. The relationships with friends and family socially embedded the introduction to the place.

The community of practice taught the participants that they could enact their initial preferences in the form of organic farming or commercial fishing. Initial preferences refer to how the participants wanted to live their lives. The organic farmers preferred to work outdoors, to be independent, and to contribute to positive social and/or ecological change. The commercial fishermen's initial preferences were a commitment to make a lot of money, a desire for independence, a love of the outdoors and/or the ocean, and a need for adventure and hard work.

An example of the farming community support was the way Stephen and Richie were encouraged to begin farming businesses. The two of them wanted to work outside, loved their independence, and desired to grow their own food. Both of them had worked construction and other outdoor jobs while growing their own food. Soon they both discovered that they had a surplus of produce. Neither had considered having a farming business until friends and customers informed them that they could sell their excess produce at health food stores and farmer's markets. Once they began to sell their produce, with the support of customers who consumed and other farmers who taught them how to farm effectively in

New England, they developed viable farming businesses and were enacting their initial preferences.

An example of the commercial fishing community support for initial preferences was the way Chris' family supported his childhood love of boats, the outdoors, and the ocean by providing boats for him to go out on the water with. Eventually, other fishermen offered Chris jobs and trained him to become a commercial fisherman. Without the support of the community members, Chris could not have begun to enact his preferences in the form of commercial fishing.

Both organic farming and commercial fishing provided the means for the participant to experience his or her initial preferences being enacted, establishing passion and personal engagement in the community of practice, critical for motivation. According to Lave and Wenger (1991) and Wenger (2001), the motivation to participate is regarded as a required characteristic of the newcomers into a community of practice. "Communities of practice depend on the passion and personal engagement of their members" (Wenger, 2001,p.42). The participants' passion to not only enter, but to continue to engage in the community of practice was due to their ability to enact their initial preferences in the organic farming or commercial fishing practice.

*Differentiated Roles of Community Members,*

*And Motivation to Progress Through Those Roles*

The participants became newcomers and progressed through various roles in the profession because of their maintained motivation and passion. They were motivated because they experienced their initial preferences being enacted. The

support to grow into new roles was both skills oriented and emotional. In this section I discuss the importance of the different roles in a community of practice, from newcomers to full practitioners, and how motivation is maintained.

The roles of the members in a community of practice affect the continuity of the membership. Fontaine (2001) conducted research on communities of practice in business. The results indicate that there are specific roles in the community. The implications of Fontaine's results suggest that roles supply communities with three significant benefits...[one of which is] continuity.

When the membership changes due to new opportunities or attrition, roles help the community maintain a steady course. Over time, community members may come and go, but roles...provide grounding for the community's purpose and practice. This connection to the community's past- through...stories and history, helps. (Fontaine, 2001, p.17)

Changing roles is further described in Hutchins's (1993) research into how people learn to navigate on the ocean. In his research, he describes how training happens in a situated learning context of a community of practice. "In many human systems, as people become more skilled they move on to other roles in the task performance group, making way for less skilled people behind them and replacing more expert people before them who advance or leave the system" (p. 49). The general role within a community of practice is from newcomer to full practitioner.

Newcomers are essential for the continuation of a community of practice. Robert Putnam (2000) in his book Bowling Alone, discusses the current decrease

in community organizations' membership. He attributes this to a decrease of entering newcomers.

In the last several decades of the twentieth century all these community groups...in America began to fade...It wasn't so much that old members dropped out- at least not any more rapidly than age and accidents of life had always meant. But community organizations were no longer continuously revitalized, as they had been in the past, by freshets of new members. (p. 16)

In order for a community of practice to continue, newcomers play a vital role. The participants were newcomers into the community of practice because they could see their initial preferences enacted. The more the participants were exposed to the profession, the more motivated they were to progress from newcomers to old-timers, then to training the following newcomers, and so forth. In my study, the participants who were commercial fishermen were either crew (newcomers) or owners (old-timers). Each participant was a member of the community of practice, essential for the community to sustain itself. Whether they were a newcomer or old-timer, they were placed on a continuum towards developing the skills of an old-timer. The old-timers (referred to as mentors, captains, landowners, or boat-owners), were able to describe their experiences as a newcomer and to say how the community helped shape them to become the professional "old-timer" they are today. They described how they were supported and trained by old-timers to become an old-timer themselves. Now the participants train newcomers in turn.

The organic farmers felt that part of being an organic farmer is training new organic farmers, to encourage organic farming and small family farms for the betterment of ecological and social issues in the United States. The commercial

fishermen spoke of needing newcomers as crew for safety and efficiency. In addition, the fishermen discussed how the commercial fishing industry is suffering, primarily due to the regulations and the instability of the profession, causing a significant decrease in newcomers. The fishermen commented that without newcomers, they fear that there will be no future in the industry.

Motivation is central to the LPP theory, “Legitimate peripheral participation in communities of practice.... is motivated by the growing use value of participation, and by newcomers’ desires to become full practitioners” (Lave and Wenger, 1991, p.122). As the participants develop over time into various roles, the old-timers increasingly value their participation.

For example, when Ella chose to leave her business to learn more from Stephen’s attitude and approach to farming, she also learned that her experience was highly valued by Stephen. She did not consider Stephen her “boss,” but rather a mentor who also learned from her. She felt free to experiment with new forms of weed suppression (mulching) and encouraged Stephen to try biodynamic farming. As her projects were successful, she felt increasingly valued as a crewmember on Stephen’s farm.

James shared how he is a highly valued crewmember because of his hard work ethic and his willingness to learn. James knew that his captain would not be able to find another crewmember that would know as much as he did, and who would be as committed to the business. He only felt this way as he became increasingly knowledgeable about the practice, how to fix the boat, how to find the fish, and to help new crewmembers.



The ability to move into different roles motivates a participant to enter and remain in the community of practice. Emotional support is also important for newcomers' motivation to progress through the roles. Emotional support both includes how a person is treated emotionally and handles emotional situations within the context of learning and the person's friendship with other community members.

The complex relationships that occur in a social context can impact one's learning and motivation to stay in a community of practice. Urs Fuhrer's (1993) research suggests that the emotional context of the community of practice maintains an important role in maintaining newcomers, supporting them to develop and learn to become old-timers by supporting the participant emotionally. Fuhrer states, "Looking at newcomers coping with real-life behavior settings demonstrates that situated learning is the joint product of processing cognitive, social, emotional, and environmental goals... Situated learning must be viewed as the coordination of multiple actions or goals" (p.207). If a person is embarrassed, then they need to either navigate through these emotional feelings successfully to learn, or they will not learn and possibly leave the community of practice.

During my day on Miles' boat, I observed him train a complete newcomer, his crewmember, Bob. Bob was on his second day out fishing. I observed Miles encourage Bob to take risks and try new tasks through patient direction giving and training. Miles acknowledged Bob's successes, and patiently redirected Bob when we failed. Fishing is a stressful occupation in that if Bob were to make a big mistake, he could cost Miles thousands of dollars. However, Miles was

encouraging, and Bob felt emotionally supported and wanted to continue in the practice.

The emotional motivation to remain in a community of practice is also based in a person's connection to the work and the community of people (Wilson, 2000). In my study, the relationships between the participant and the community of practice established the motivation to remain in the community because the participants viewed the community of practice as extending beyond the feeling that they were just "at work." Both populations referred to other farmers or fishermen as their friends. The deep connection they felt toward their friends was due to their common daily experiences. This connection helped them learn more about their profession as well as maintain their high motivation and commitment. Both organic farmers and commercial fishermen provided examples of this.

Farmers shared how at Farmer's Market the farmers come together and compare notes and share information, joy, and misery. They support one another and feel a certain connection that keeps them going, even during rough times.

Last week after market I was so angry, I was hanging out with a couple of other farmers and we just sat there and had a piss session. We talked about bad weather and bad customers and bad bugs and bad birds and bad mammals. It was just complete narcissism. But if it sucked that bad we wouldn't really be doing it, but sometimes it just feels so good to bitch, and its so good to bitch and with the people who know exactly what you're talking about. (Parker, #2)

Fishermen spoke of their days out at sea and how they talk to one another on the radio, informing one another of where to go to catch more fish, discussing different industry issues, debating regulation politics, and sharing their enjoyment of fishing. This collegiality maintains the spirit of the community of practice, and

keeps members involved and co-participating in learning. The friendship and camaraderie within the community of practice is a large part of what keeps the participants motivated to remain in the profession.

Motivation to remain in the community of practice is dependent upon the participants' feeling that they are a valuable community member are receiving emotional support. In order to progress into a full practitioner, the newcomers need to develop a new set of skills appropriate to the practice, and to learn about the context in which they work. In the case of organic farming and commercial fishing, they need to learn ecological and social processes. Communities of practice are learning communities, in which the community members are constantly learning the skills of the practice and the associated knowledge that will enhance their effectiveness in the practice. Communities of practice socially situate learning of specific skills and knowledge.

*Community of Practice as a "Learning Community":*

*Participation Shapes Cognitive and Affective Understanding*

The learning that occurs in a community of practice is described as situated learning because learning occurs in a social context, with the influence of other people's expertise, perspectives, and ideas (Fontaine, 2001; Kerka, 1997; Wenger, 2001; Lave & Wenger, 1991; Wilson, 2000). In this section, I first discuss the need for ecological and social knowledge of the practice. Then I introduce how the community members (first the other farmers or fishermen, then the government, and last the customers) contribute to the construction of knowledge of local ecological and social processes.

In order for a participant to move through various roles within a community, they need to learn the associated skills and knowledge of the profession. The community of practice created the social context for learning. The theory behind situated learning is to not separate learning from the world, but rather to pay attention to the context, in this case farming or fishing:

“Participation in everyday life may be thought of as a process of changing understanding in practice, that is, learning,” according to Lave (1993, p.6). In their earlier work, Lave and Wenger (1991) clarify that in situated learning theories, “learning is an integral and inseparable aspect of social practice” (p.31).

As a result of immersion into the community of practice and the support they felt, the participants constructed ecological and social knowledge quickly. The participants demonstrated the importance of a social context in which to learn. Next I will discuss how other farmers and fishermen socially situated learning. Eight out of the ten participants experienced significant mentors or captains who taught them how to farm or fish.

The organic farmers learned about the practice formally and informally as they began to farm, not only from other farmers, but also through books, workshops, or direct apprenticeship. Parker spoke of having many significant mentors in his farming career. First he had his uncle who introduced him to farming. Then he met Gary Bolton, who taught him how to manage a farm, how to effectively plant corn in the region and, the economic end of farming--how to run a business successfully. When he farmed a piece of Stephen’s land, Parker learned from Stephen the attitude that one must gain in order to balance work and

play. The land he was leasing and farming at the time of the interviews was originally a potato and corn farm, conventionally run by an older farmer. This man, William, was still present and he taught Parker about the land. “William taught me the nuts and bolts of this exact place...One example is that he told me to pump water from the river to the ponds before the winter in case of a drought.... He taught me where the land heaves and depresses and where the pipes can get clogged and freeze if they are not drained properly” (Parker, in personal communication, February 5, 2002). In addition, William taught Parker about how to effectively run a farmstand and how to attract customers, teaching Parker about the social processes as well. He shared with Parker how to make road signs and which produce to advertise.

The commercial fishermen also experienced support from community members to learn the social and ecological processes. Other fishermen, whether they were family, friends, or neighbors, introduced the participants to the fishing industry and helped them place jobs on boats and eventually helped them buy boats. James, who was still a crewman at the time of the interviews, shared why he keeps working with his captain. Although he can work for anyone at this time because good crewmen are hard to come by, he sticks with his captain because he teaches James how to fish effectively, primarily by modeling good fishing practices. James’ captain takes the time to teach James about different species and their associated behaviors, where to fish, the different geographic areas of the ocean, how to repair the machine, and how to navigate. He also is on the regional management council for regulating fish.

James spoke of how his captain's involvement with the regulation management counsel helps them catch more fish by giving them inside knowledge and comprehension of the regulations which allowed them to plan ahead on how to target the right types of fish. During the year prior to the interviews, they knew that cod would be down to thirty pounds, so they decided to target monkfish, which is a slow, big fish that is caught with very larger mesh nets. Because of the excessively large mesh size, they had very little by-catch, and caught a lot of monkfish. Not only did his captain understand the regulations ahead of time, but he also paid attention to the market and knew that Japanese were buying monk at high prices. The result is that James and his captain made a lot of money, and James learned that he must not only know the ecological processes, but also be keenly aware of the social political processes as well.

In addition to this passing on of knowledge, James' captain made James feel cared for. James expressed that although he and his captain are both very independent, he strongly believed that his captain was grooming him to captain his boat when he retired. James was learning from him so that he could do this successfully.

In both the commercial fishing and organic farming communities, the mentors introduced the participant to the local political climate that has played an increasingly influential role on the livelihoods of these land practitioners. The government is part of the community of practice for both the commercial fishermen and the organic farmers. It is not perceived as being supportive by the participants, because both populations feel the government favors larger scale

corporations, rather than small family businesses. However, the government is a member of the learning community as well.

The organic farmers also learned about ecological and social processes from the government, primarily through organic certification. State governments traditionally imposed the organic certification regulations. The farmers spoke of how the “paper work” and organization required to maintain certification was cumbersome and time consuming. The benefits of the certification process keeps the farmers following ecological and sustainable processes that are required for certification, such as crop rotations and soil amendments. In addition, labeling food organically certified informs customers of the farmer’s organic practices. However, the farmers don’t really appreciate a lot of the government regulations.

Recently, the United States Department of Agriculture (USDA) has begun to determine what organically grown produce is and how it should be grown. Among farmers there is a cynical feeling that the federal approach to regulating organic foods may benefit larger organic agricultural businesses rather than the small organic farmer. The government teaches the farmer of ecological and social processes because it keeps the farmer informed of new regulations and what customers desire.

For commercial fishermen, the government supported the industry through regulating the fish populations, which all the fishermen agreed was helpful to rebuild fish populations. In addition, the government taught them more about how the fish populations were declining and about some of the ecological aspects of the commercial fishing industry’s affects. Although the fishermen did not

always agree with the government's scientific findings, they learned to think more critically about their observations, in order to present their personal findings at public hearings. They may not have agreed with the way the government set the regulations, but they did learn to begin assessing what methods would be more effective to preserve fish stocks while also preserving the fishing industry.

Politically, the fishermen became aware of the sociopolitical support (or lack of) for commercial fishing as an industry. For the most part, they felt powerless and voiceless, and this resulted in decreased attendance at public hearings.

I put three four days in a row [at public hearings], and that's when they ended up with the thirty pounds of cod, so the whole world was there speaking economically it won't be good, but they still went to thirty pounds. So they didn't listen to anybody, so why bother going? If you're not gonna listen, fuck, go ahead and make it out yourself, what ever you want is good. It's: 'Whatever you come up with, go ahead and do it, because it's what you are gonna do anyway.' (Miles #3)

The government played a significant role in the commercial fishing community of practice, changing the way fishing happened via increased regulations. It also helped contribute to the sustainability of the industry by rebuilding fish populations with the regulations. However, many of the fishermen also believed that the government did not support the fishermen by imposing so many regulations at one time, primarily because they negatively impacted the entire infrastructure and forced many processing plants to close. The fishermen believe that the fish are back and now there is no place to sell fish.

Being able to sell produce and fish was among the farmers' and fishermen's main concerns, because customer demand creates the economic



market that allows them to maintain their business. Customers are members of the social context of the learning community because they teach the participants about social processes through their consumption patterns. Economics are a social process that is based in customer demand and can create or destroy a business. In order for the participants to be successful in their profession, they needed to have knowledge of their customers needs and desires.

Organic farmers interfaced directly with their customers at their farmstand, at Farmer's Markets, or at wholesale places such as restaurants and stores. The farmers determined customer demand in order to supply the right product at the right price. They did this partly by culturally profiling different customer groups. For example, of the two major Farmer's Markets, one was affluent and the other was poor, which indicated what types of produce farmers would sell and at what price. The farmers brought varying amounts of different produce to address the specific needs of the community.

In addition, they learned who their customers were and how they liked to view and purchase food. As a result, farmers adapted their food presentation to the needs and desires of their customers in an effort to build a larger customer base. Farmers learned from their customers about their needs and desires and complied appropriately. Customers taught the participants about some of the social processes, primarily economic.

The commercial fishermen did not interact frequently with their customers because they sold their fish to a fishing co-op that distributes and sells the fish. However, they tried to be aware of who was buying what type of fish, as in the

case of James and his captain knowing that monkfish was currently a delicacy in Japan, and therefore deciding they would target a fish that they could get a higher price for.

The human community of practice, other fishermen and farmers, government, and customers continually taught the participants about the local ecological and social processes. In addition to learning these processes, participants were acutely aware of their interdependent relationship with them. The increasing knowledge and awareness contributed to their success in the practice, changing their role from newcomer to full-practitioner.

Learning that occurs in a workplace is considered by community of practice theorists to be authentic learning, and is often referred to in the literature as an effective way to teach skills and facts behind the techniques. "In the informal setting of the workplace, effective learning resulted from learners' engagement in authentic activities, guided by experts and interacting with other learners," writes Kerka, for example (1997, p.3). Kerka points out that in situated learning, the focus of the literature is on learning the skills and the facts, but not always on dispositions. She notes the importance of how the dispositions and ethics held by other community members also are passed between the various roles and are constantly learned and relearned.

#### *Community of Practice Shapes the Participants' Dispositions and Ethics*

Within a community of practice, not only knowledge is passed on. The dispositions and ethics of the old-timers are passed on as well. Bai Heesoon (2001) suggests that our ethical values are shaped by the sociocultural context in

which we live. The community of practice can pass on various attitudes and dispositions that can either promote environmentally responsible behavior or not. The development of ethical consideration for the place comes through interacting with the community of practice.

The community of practice can also loosely be referred to as an institution. In *The Good Society*, Bellah, Madsen, Sullivan, Swidler, and Tipton (1991) discuss the notion of institutions in American society today, and define institutions, based on sociological theories, as “the patterned ways Americans have developed for living together” (p.4). They further state that “institutions mediate the relations between self and world” (p. 287). They claim that institutions shape how we interact with others. When interacting with people, we learn cultural norms, or “mutual expectations” of how we ought to act with other people:

Our relations to the natural world are also mediated by institutions. Even the enjoyment of the wilderness by a solitary hiker is mediated by whole set of social understandings about ‘nature,’ the place of human beings in it, and the feelings nature should awaken in ourselves. Organized relations to the natural world- agriculture, mining, manufacturing, etc.--are of course mediated by institutions. (p.288)

This work supports the notion that newcomers in a community of practice learn these dispositions and ethics for better or for worse. In my study, the prominent dispositions and ethics that were passed on by old-timers were their work ethic, their views of their job, and their ethical disposition toward the local ecosystem. I will begin with how the community of practice passed on the disposition to view farming and fishing as a way of life rather than as a job.

Secondly, I will show how the community of practice predisposed the newcomers to the already existing disposition toward the local ecosystem.

The participants in this study did not refer to their profession as a “job” so much as a way of life. They learned this belief from previous farmers and fishermen. In addition, because the work is a large part of their way of life, the community members began to comprise a majority of their social interactions and friendships. The community of practice, by the nature of the careers, began to enmesh their work ethic with their friendships.

Eight out of the ten participants viewed their work as their life, and did not differentiate between the two. They said their lifestyle was defined by their work. They linked community and lifestyle. This is very different from most of United States society. Bellah, Madsen, Sullivan, Swidler, and Tipton (1996) define lifestyle community and lifestyle:

The term lifestyle...is an expression of private life. It is linked most closely to leisure and consumption and is usually unrelated to the world of work... The term community attempts to be an inclusive whole, celebrating the interdependence of public and private life and of the different callings of all... (p.72)

In this citation, community and lifestyle are separate, whereas in my study, the participants viewed their lifestyle and community as integrated. The participants' friendships intertwined with their professions. The participants held the view that they live and work within a community, and this community defines their lifestyle. The differentiation between lifestyle and community that Bellah et al. (1996) develop helps clarify how the participants in this study differ from the majority of the people in the United States. The seamlessness in their lives

allowed them to feel a deeper connection to their work and community, and therefore helped them learn more about the place and develop a sense of place.

In Unsettling of America, Berry writes that formerly in American culture “work and rest, work and pleasure, were continuous with each other, often not distinct from each other at all” (Berry, 1976, p.53). He contrasts this with today’s American culture, which he describes as being disconnected and therefore abusive of the land. Berry states that disconnected people experience a separation between work and pleasure, and this leads to a divide in their lives.

[The cause of the divisions]...is our attitude about work...we have made it our overriding ambition to escape work...All the ancient wisdom that has come down to us counsels otherwise. It tells us that work is necessary to us, as much a part of our condition as mortality; that good work is our salvation and our joy; that shoddy or dishonest or self-serving work is our curse and doom. (Berry, p.12)

In my study, the participants were content with the enmeshment of their work with the rest of their lives. The community of practice encouraged this by how hard they worked and by how different they are from the majority of modern culture. In addition to affecting the participants’ work ethic, the community of practice also informed their disposition toward the local ecosystem.

There are times when the information passed on from an old-timer to a newcomer can have a positive effect and other times when they have a negative effect. Jim Cheney (1999) demonstrates how learning the stories and dispositions of the coparticipants can be positive. He suggests that human beings are linguistic creatures that learn about a place and the history of a place through listening to stories. He describes a social context where indigenous people who share stories pass on a positive environmental ethic to newcomers and younger

generations. On the other hand, Heesoon (2001) also refers to people as linguistic creatures, and concludes that the social situatedness of learning each other's dispositions can be negative, and can lead to ecological harm, as it has done in western culture in the United States.

In her study, Kerka (1997) summarizes the strengths and weaknesses of the workplace as a learning community. Among the strengths of learning in a community of practice were access to guidance, intrinsic reinforcement, and authentic goal-directed activities. Among the limitations, she includes, "construction of inappropriate knowledge (e.g., racist or sexist attitudes, unsafe work practices)" (p.3).

The dispositions that pass on from one generation of members to another can be both positive and negative. In my research study, the participants were learning about their practice, the ocean, the land, customers, and other aspects of the community. They were gaining perspectives and dispositions regarding these aspects through working with their mentors and peers, and with the landscape. As the participants learned new information about farming or fishing from their community members, they constantly changed their approaches to farming or fishing.

As the organic farmers became immersed in their community of practice, they continued to learn about the mission of organic farming, and deepened their knowledge and commitment toward the preservation and building of soil. In addition they gained an interest in educating young farmers and local community members about the importance of knowing where one's food comes from, of

supporting local family-sized farms, and of understanding organic farming practices and benefits. Farmers became increasingly aware of other issues that affect organic farming, such as biologically engineered food and the use of non-organic sludge on farmland. The farmers began with a general commitment to right some environmental wrongs, or to live simply, and then became increasingly ethically oriented to preserve small family farms, organic soil, and long term sustainable agriculture. Their transformation of values and commitments came as a result of learning the organic farming communities' disposition toward sustainable agriculture and community education.

The commercial fishermen also experienced a transformation in ethics and behaviors as a result of new knowledge provided by scientists and the ocean itself. The fishermen first learned to have a fairly wasteful disposition toward harvesting fish as a result of learning from their community of practice. The result was a noticeable decline in the local groundfish population. The fishermen noticed this, as did scientists and government regulatory agencies. The result was not only increased regulations, but increased knowledge among the fishermen of how their behaviors can affect the fish populations. The fishermen also learned how declined fish populations affected their ability to harvest fish, and therefore, their incomes and livelihoods. The end result was a significant change in fishing and harvesting behaviors.

In both cases, the participants changed over time in their ethical disposition toward the local place as they learned more about the practice, its impact, and the place. It is true that the dispositions learned were both negative

and positive. The participants expressed a deep love and care for the place as a result of the social contexts in which they learned their profession, even though they did not always act in a loving way. They learned dispositions and behaviors from the community of practice.

*Conclusion: The Need for Introducing a Care Ethic and  
Deep Ecology into Environmental Ethics*

Although the community of practice literature strengthens the conceptual and empirical foundation of sense of place, it does not fully develop the moral implications of community relationships. There still needs to be an ethical discussion that develops the links between sense of place and environmentally responsible behavior. The purpose of this study was to develop a deeper understanding of how sense of place was developed and sustained, and to determine if there are links between sense of place and environmentally responsible behavior. Environmentally responsible behavior is the result of attitudes, perspectives and ethical considerations.

Communities of practice begins the path of understanding environmentally responsible behavior in terms of dispositions that are cultivated in communities of practice, but it does not fully provide a foundation for the possession of an environmental ethic. Primarily, the community of practice literature lacks an extension of the social context to include the non-human world. Environmentally responsible behavior is rooted in an environmental ethic, which considers the non-human world. In order to strengthen the conceptual and empirical foundations of



this link, there is a need to reference to both the care ethic and deep ecology literature.

### **Sense of Place to Environmentally Responsible Behavior:**

#### **A Care Ethic and Deep Ecology in Environmental Ethics**

In this section I will introduce ethical literature that helps define and understand how the participants' sense of place links to environmentally responsible behavior. First, Nel Noddings's care ethic will be described and applied to the data. Because she does not extend her care ethic to include the non-human community of practice, I then introduce deep ecology and environmental ethics literature to support the data, the participants' spiritual belief that they can ethically consider the non-human community.

#### *Nel Noddings's Care Ethic*

The participants felt supported by the human community of practice from the other fishermen or organic farmers, government and customers. Over time they evolved from newcomers in the community of practice to old-timers. The initial support felt by the participants can be considered "caring," as Nel Noddings (1984) defined care in her care ethic. To her, the foundation of ethical response is "human caring and the memory of caring and being cared for" (p.1). She conceptualizes caring to mean the relationship between the one-caring and the one-cared-for.

At the heart of Nel Noddings's thesis is the notion of reciprocity, where in order for ethical caring to evolve, there needs to be a relationship that is completed between the one-caring and the cared-for. "A caring relation requires

the engrossment and motivational displacement of the one-caring, and it requires the recognition and spontaneous response of the cared for” (p. 78). The engrossment and motivational displacement refers to when one is caring there is a “displacement of interest from my own reality to the reality to another” (p.14).

The freedom, creativity, and spontaneous disclosure of the cared-for that manifest themselves under the nurture of the one-caring complete the relation... What the cared-for gives to the relation either in direct response to the one-caring is in personal delight or in happy growth before her (the one-caring) eyes is genuine reciprocity. It contributes to the maintenance of the relation...(p.74)

The response of the one-cared-for is the way in which the cared-for gives to the relationship, is genuine, “To behave ethically in the potential caring relation, the cared-for must turn freely toward his own projects, pursue them vigorously, and share his accounts of them spontaneously. This is what the one-genuinely-caring wants but never demands” (p.75).

The participants in my study all experienced old-timers in a community of practice who introduced him or her to the community of practice. As newcomers, they were immersed into the way of life of the organic farming community or the commercial fishing community. The participants in my study represented the “cared-for” role in the caring relationship when they were newcomers. The mentors and other farmers or fishermen trained them, provided work, boats, land, or equipment for them. The participants were supported over time to learn and become full practitioners. For example, James expressed how he came to know the fishermen.

When I first wanted to go fishing, I would go beat the dock, want to go down and wanted to talk to people and I would be so scared of these big fat

tough guys. Now I realize that fishermen are more open minded than anyone else in the world. (James, #1)

Many of the participants referred to their mentors as being patient and accepting of different levels of ability. Most of the participants discussed how much they had learned from working with various mentors, and as they did, they expressed what Nel Noddings refers to as “vigorous effort” and “spontaneous sharing of accounts.” When I observed Miles with his newcomer on his boat, Bob, the newcomer, constantly was excited about what he was learning when he was successful in his practice.. When he would successfully drop the nets, he would express his excitement, and Miles would look at me and say, “It is the little things,” and laugh. Miles exhibited endless patience as he helped the newcomer take fish out of the nets, haul the nets, clean the fish, and do all the other jobs to be done while they are out gillnetting. The newcomer exhibited being the one-cared-for.

The participants in my study, all of whom have commercially fished for over six years, all felt cared for and supported by a mentor in the practice and by various community members. Over time, as they developed into full-practitioners, they developed an ethical consideration toward the community.

Recognizing the development of ethical consideration toward the place is critical for understanding the links between sense of place and environmentally responsible behavior. Therefore, I will further develop Noddings’s definition of care to encompass ethical considerations. She delineates two types of caring -- natural caring and ethical caring.

Morality as an “active virtue” requires two feelings... The first is the sentiment of natural caring. There can be no ethical sentiment without the initial, enabling sentiment. In situations where we act on behalf of the other because we want to do so, we are acting in accord with natural caring...the second sentiment occurs in response to a remembrance of the first...This memory of our own best moments of caring and being cared for sweeps over us as a feeling--as an “I must”--in response to the plight of the other and our conflicting desire to serve our own interests. (p. 79-80)

The development of ethical caring derives out of experiencing natural caring. Noddings further claims that in order for a person to be able to naturally and ethically care, the person needs to have experienced being cared for.

Ethical caring, the relation in which we do meet the other morally, will be described as arising out of natural caring--that relation in which we respond as one-caring out of love or natural inclination. The relation of natural caring will be identified as the human condition that we, consciously or unconsciously, perceive as “good.” It is that condition toward which we long and strive, and it is our longing for caring--to be in that special relation--that provides the motivation for us to be moral. We want to be moral in order to remain in the caring relation and to enhance the ideal of ourselves as one-caring. (p.5)

The difference between natural caring and ethical caring is that one feels that one *wants* to care in natural caring and one feels they *ought* to care in ethical caring. The “I ought to” feeling, or the “I must” feeling, indicate a moral obligation. The moral obligation to care comes out of the motivational displacement of oneself as the one-caring.

We have aroused this feeling [that] “I must do something” When we see the other’s reality as a possibility for us, we must act to eliminate the intolerable, to reduce the pain, to fill the need, to actualize the dream. When I am in this sort of relationship with another, when the other’s reality becomes a real possibility for me, I care. (p.14)

In my research, both established farmers’ and fishermen eventually felt an obligation to support and teach newcomers. The old-timer’s motivation to support the newcomer was both natural and ethical. Farmers were concerned with

educating newcomers to encourage more people to start small farms. Even if the small farms would eventually lead to competition for them, they did not care, because they felt an obligation to help sustain small family organic farms based on their beliefs that this is a positive environmental movement. Fishermen knew they needed newcomers to maintain a safe operation, reduce workload, and introduce future captains and boat-owners to the industry to ensure the longevity of the industry.

Parker expressed that he felt it is part of his duty to train newcomers in the form of internships. He shared with me that he loses a lot of money when he trains newcomers because they make a lot of mistakes, lose a lot of produce, break equipment, and more. However, he felt a genuine commitment to training the newcomers, especially when the newcomer expressed a true commitment to learn. Parker provided a good example of being the one-caring.

As shown by the example of Miles, some of the participants had also begun to emerge into the one-caring for newcomers. They demonstrated a patience and genuine interest in training the newcomer. It would benefit their practice, but also they all were aware of the need for newcomers for the continuum of the industry, fishing or farming. They had a genuine interest in training the person, even when at times this cost them more money.

The “old-timers” were not always moved to care for a newcomer, and this is when they did not become engrossed or motivationally displaced. For example, Miles could not continue working with his newcomer because he was bothered by the personality of the man, who was coming off of heroin. When he laid off his

newcomer, Miles expressed both relief and grief. He wanted to train a newcomer, but he could not work with this guy. He said he has his eye on a young kid who eventually may become his helper. Miles looks forward to training this kid because he seems to be interested in the profession.

Nel Noddings's theory of the care ethic establishes the initial understanding of how the participants developed a care ethic for the community of practice. They felt cared for, and therefore worked hard to learn the practice, as one-cared-for might. As a result, they were able to develop into more full practitioners, eventually leading to a role where they could not only be the one-cared-for, but they could be the one-caring.

Nel Noddings does not include non-human beings in her care ethic for several reasons. The biggest reason is that her theory premises that ethical caring can only emerge in a completed relationship between a cared-for and one-caring. She argues that animals or plants cannot complete the relationship as the cared-for and engage in a reciprocal relationship. The care ethic literature carefully outlines how one develops an ethical disposition toward the place and then comes motivated to act ethically. The care ethic is an extension of the community of practice theory and situated learning theory because it requires a social context of support. However, like the community of practice literature, the care ethic fails to integrate the non-human community effectively, if at all, into the theoretical framework.

The purpose of this study is to strengthen our understanding of the link between sense of place and environmentally responsible behavior, action that is

based in knowing the difference between environmentally “right” behavior and “wrong behavior.” Environmental ethics are a guide for judgement and action, for living in a way that is sensitive to the ecological and social limits of a place. “How should we live in community with other human beings and with the natural world?” asks Desjardins (1997, p.5). To begin to understand how the participants’ environmental ethic was informed and at times motivated to act accordingly, I interpret the data with environmental ethics and deep ecology literature. This literature also helps extend the community of practice literature and the care ethic literature to include the non-human world in their frameworks.

### *Environmental Ethics and Deep Ecology*

The caring and ethical relationship with the natural world can be best discussed by referring to the literatures of deep ecology and environmental ethics. A spiritual element to the relationship with the natural world emerges in this section. I refer to environmental ethics literature and then draw upon deep ecological thinking to support the notion that human beings are part of the natural world, not separate, and therefore can maintain ethical consideration toward the non-human world. Next, I discuss the participants’ connection to the natural world metaphorically and spiritually, further supporting the idea that an ethically caring relationship extends to include the non-human world.

According to Desjardins (1997), environmental ethics are derived from reflecting on one’s typical actions, and from asking oneself how one should act opposed to how one does act:

Environmental ethics is the practice of rationally reflecting upon how we should live in relation to our natural environment...[it] asks us to step

back from our daily decisions, step back from our own ethos, and to reflect upon how our decisions affect the natural environment. (p.4)

This type of ethic considers the implications of one's actions for the local ecological and social systems. What is considered right and wrong behavior is linked to the impetus to protect and restore nature for the benefit of future generations of all living beings. "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise," according to Aldo Leopold's essay *The Land Ethic* (1966, p. 262). Here he discusses how we are alienated from the natural world, yielding self-interested economic ends only, without regard to the natural world.

Perhaps the most serious obstacle impeding the evolution of a land ethic is the fact that our education and economic systems are headed away from, rather than toward, an intense consciousness of the land. Your true modern person is separated from the land by many middlemen, and by innumerable physical gadgets. This person has no vital relation to the land. To him it is merely the space between cities on which crops grow (p.261).

The separation of self from place is what can be detrimental to the way one regards the non-human world: an ethic is required that unites the two. Leopold (1966) suggests that the role of the human being should change from "conqueror of the land-community to plain member and citizen of it" (p.240). In being a "citizen of it," a person works with the land-community and cooperates with it.

All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in the community, but his ethics prompt him also to co-operate (perhaps in order that there may be a place to compete for). The land ethic simply enlarges the bounds of the community to include soils, water, plants, animals, or collectively, the land. (p. 239)



Leopold asserts that the modern person needs to be more connected to the land. "It is inconceivable to me that an ethical relation to the land can exist without love, respect, and admiration for the land, and a high regard for its value," he writes (p.261). He argues that education needs to teach ecological principles as well as a distinction between right and wrong, moving us away from a self-interested economic paradigm to one that is ecologically conscious. Leopold's argument primarily suggests that there needs to be an increase in ecological consciousness and a decrease in the separation between people and the non-human world.

Deep ecology thinking explores people's perception of where humans are located within the non-human world, and this supports the view that ethical consideration can be extended toward non-human beings, including them within the care ethic framework. To ethically consider all organisms together, non-human and human beings alike, is central to deep ecological thought, a view ecologists refer to as a non-dualistic view, emphasizing that other organisms are equally as valuable as humans (LaChapelle, 1991; Naess, 1973; Naess, 1989, Hasdeen 2001). Heesoon (2001) writes that modern culture is alienated from and separate from the natural world, leading to our more destructive habits. She states that the way in which we perceive ourselves in relation to the non-human world will determine how we treat the non-human world.

We are linguistic-conceptual creatures who live by ontological 'pictures' of what the world is like and what we are like, all the while assuming these pictures to be reality itself. This unconsciousness happens because we have internalized these pictures through having been socialized into particular historical, sociocultural, intellectual, religious, and other personal and institutional contexts of situatedness... Some pictures of

reality are more conducive to our living in harmony with the world and each other than others. (p.4)

She argues that we should change our perspective from a “dominion over, subject-object type relationship” with the earth into one in which we view ourselves as being intrinsically part of the earth. She supports the idea of non-duality: “A non-dualist ontology... has made a commitment to non-duality of self/other, subject/object, and mind/matter” (p.11). Bai provides the reader with a suggested a spiritual practice to obtain non-dual consciousness, which again, integrates spirituality. The deep ecological ethic is based in the belief that there is no distinction between self and others, that humans and non-humans are united by the fact that humans cannot survive without the life of other beings. Therefore, all are equal.

Deep ecology is often described in opposition to “shallow ecology.” “Those who support the shallow movement are anthropocentric, in the sense that everything done to protect and restore nature is seen as having benefit for future human generations. In deep ecology, future generations means generations of all living beings, including rivers for example” (interview with Naess, 1989, p.40). Among the philosophical underpinnings of the deep ecology movement, human beings are seen as intrinsically part of the non-human world. Rivers and land are also seen as living beings, a view that comes from a more metaphysical perception of the earth, and unites the self with the non-human world. Naess says, I can speak of “dualcentricism,” in the sense that our attention is not only toward human beings, but all living things such as landscapes and rivers, and that we don’t like the distinction between humans and the environment. We do not

recognize that as a valid distinction. We take the ecological view where you cannot single out anything, an interrelated network which is intrinsic...The distinction between humans and the environment tends to perpetuate this homocentric view, where you see yourself inside something and then nature as outside yourself. Your self is an ecological self...It's not an isolated self which can look at something outside of that self, namely the environment." ( p.42)

This perspective coincides with the sense of place literature that refers to one's ecological identity, one's sense of self is in relation to the context of place.

In modern culture, we tend to view the earth and its living creatures as separate from us. From a deep ecological perspective, one does not separate humans from the natural world. The participants in this study did not necessarily speak explicitly of a deep ecological perspective, but their "land practitioner" lives were inextricably linked to the natural world in such a way that they were required to pay attention to their enmeshment with non-humans. They knew that the availability of land and fish, and all ecological aspects that affect this availability, impacts the viability of their livelihood. They knew that they are interdependent with the non-human world.

Weather, seasons, migrations, and many other types of natural occurrences affect the farmers' and fishermen's lives by dictating how to grow certain produce or where to fish. For farmers, inclement weather can negatively impact a farmer's ability to plow, plant, and harvest. Temperatures and rain can affect the ability of plants to grow into a viable crop. Farmers have to pay attention to the ever-changing conditions and adapt, in order to better able to plan and prepare, so that

they will have an economically viable crop. Their way of farming is dictated by natural occurrences. They may want to do something one way, but because of the available conditions, they are forced to do it another way. For example, if a year is predicted to be fairly cool, the farmers may resist planting too many cucumbers, which are heat sensitive and require warm soil. However, they may decide to plant their cucumbers in greenhouses instead of in the fields.

The natural occurrence of varying weather conditions also impacts the fishermen's lives. First, fishermen cannot fish when the weather is too windy, which forces them to wait out the conditions. Temperatures can impact ecological processes of fish populations, such as spawning and survival of young species. This in turn impacts where the fishermen go to catch fish, and what time of year they target different types of fish. Al shared that different seasons dictate how a fisherman will rig his boat. In one season he may drag and then in another season gillnet, depending on where the fish go with different temperatures. The participants paid attention to the natural occurrences and adapted.

The participants all knew that their lives depended upon the natural world and that they had to adapt accordingly. Although they perceived themselves as inextricably part of the non-human world, there were also times they attempted to distinguish themselves as separate from the non-human world. In these instances, the participant sometimes failed to succeed. For example, Parker shared his spiritual perspective that in farming God talks to you, and if you don't listen, then nothing works out.

I talk to God every day. This is one of the only occupations where god talks back; you just have to listen. God has a will for you. If you're being

pushed in a certain direction and you want to do it this way but you keep being pushed in a certain direction, don't be a bull and do it your way, that's God talking to you, heads up. I mean you are being pushed this way for a reason. Maybe God, nature, whatever people want to call it, I always say, "There's God talking to me. He doesn't want me to do this." (Parker, Interview #3)

Parker is demonstrating how nature has its will and as a farmer he has to listen to its demands and adapt accordingly. The fishermen had forgotten about their interdependence with fish stocks, or they had never know it, and they had fished extensively until the fish stocks depleted. They learned that they cannot do whatever they want, but rather that they need to remember that they are linked to the non-human world. No matter how much money they needed to send their child to college or pay off their mortgage, the fish populations would ultimately dictate how much money they could make.

These examples show how the participants felt that they are part of the natural world, and their lives are deeply connected to the natural world. They cannot act in any way they want; instead they must give respect to of the natural world and regard its needs. Deep ecology thinking and the data from this study suggest that humans are part of the natural world, that the two are unified.

There are similarities between communities of practice theory and deep ecological thought. Lave's (1993) theory of situated learning, and deep ecology thinking both claim that there is no distinction between the self and the world. Lave says that everyday life experiences inform our learning, and argues that situated learning does not separate the mind from the world--rather it unites the two. Deep ecology is a unifying theory as well, in recognizing that the non-human world socially situates learning, as does the human community.

The participants believed that the non-human community supports them. The participants felt like they are part of the non-human community as well as being in a supportive relationship with it, similar to the way that they are part of the human community and maintain supportive relationships with humans. The participants were able to perceive the support from the non-human world through holding a spiritual view. Their spiritual perspective allowed them to view the land or ocean and its inhabitants as friends and as part of their community.

Eight out of the ten participants spoke of their spiritual connection to the natural world in their profession. They referred to the natural world in the form of a supportive relationship, which is spiritual in that they received the natural world in the way someone would receive the human world. This felt supportive relationship evolved over time.

Some days fishing is really great and easy, but you know it is coming. There is almost a sense that you get a favor [from the ocean], I don't know if I would call it Karma, but when you need it, there is that big load of fish. When you got money in the bank, those are the days that you have crappy days. It is almost like the ocean takes care of ya. (James, #1)

Because of their immersion into the non-human community, the participants developed a personal and spiritual connection with the place. They personally felt connected to the land or ocean, therefore depicting a more spiritual orientation toward the non-human community.

The farmers also spoke of their personal and spiritual relationship with the land. They felt a connection to the land, in which they worked, and viewed the land as a friend. They discussed how they had gotten to know the land, how they became increasingly connected to it, knowing and loving all of its nuances. They

also said losing land was like losing a friend. Unfortunately, four of the five farmers had experienced losing land to housing developments.

I really love that land in Hampton falls, I have spend so much of my time, so much of my life there and life energy there in Hampton falls. ...I am losing this friend [the land] in Hampton falls. (Elizabeth #3)

As the participants developed a relationship with farming and the land and the whole community of practice, they became increasingly spiritually connected to the place. The spiritual connection developed as a result of getting to know the non-human community as a friend, as part of their daily lives.

Not only is it [farming] pleasant, it definitely makes me feel that I am more in touch with the heartbeat of the world, and of the universe. By getting in tune with it, by getting my hands dirty, getting myself dirty, working a sweat, lifting rocks, and planting seeds, and watering things... It is where I like to be, it's almost going to church, or communing. Recently I haven't been able to get to the farm that often and it's really felt bad. I feel like I really want to go and almost like going to confession, I want to go and purge myself of all this driving around, shuffling papers, working on computer stuff. Just go think like a farmer, which is always thinking about the plants and the soil, primarily the soil. (Elizabeth, #3)

The fishermen spoke of feeling deeply connected and in love with the ocean. Many of the fishermen anthropomorphized the ocean into a female character. This emotional state with the non-human community evolved for many of the participants into a spiritual connection. "There is definitely a sense of love and respect for it. ... It sounds stupid, but people really do fall in love with the ocean" (James #1).

Chris said that if he stopped fishing, he would mourn the ocean and fishing, like he would a lost or dead pet. He clarified that his feeling of loss would be even worse than this. He felt that this indicated that he had a

relationship with the ocean. Chris also mentioned how the ocean was healing for him and pacifying.

[There is a spiritual component to fishing] big time. But I don't know if I could describe what I mean by that. ...It's pretty powerful stuff out there on the ocean and I don't know what it is. Powerful for me, serenity in my head. It is probably so humbling everyday to go out and see the beauty and the power of it all, it does something for me spiritually for sure. What, I don't know. (Chris #3)

One way the participants claimed that they had a spiritual relationship with land, ocean, farming, or fishing, was through claiming that the profession “got into their blood.” Two of the farmers also claimed farming got into their blood. All five of the fishermen participants claimed that fishing got into their blood.

As a result of the participants experiencing a supportive relationship with the non-human community, they learned how to be better fishermen or farmers, and they learned more about the ecological processes and about their interdependent relationship with these processes. Because the participants' way of life is inextricably tied to the natural world, they have had to learn how to adapt appropriately to the ever-changing natural world. They have learned how to pay attention and what to pay attention to. They believed that they partly learn this from other farmers and fishermen, and partly through trial and error. They believed that trial and error was where they were learning from the natural world.

The community of practice literature does not include the possibility of co-participating in the construction of knowledge with the non-human community. But the participants believed there is a reciprocity between themselves and the non-human world. Jim Cheney (1999) offers insight into the



way humans and non-humans can co-participate in the construction of knowledge. He does this with the use of metaphors, making his argument by using the ethical relationship that one can have with a rock. And arguing that we can have an ethical relationship with rocks because we can create knowledge from rocks. “Suppose we begin with the idea that knowledge arises as a ‘knowing with’ the earth, that the earth (rocks included) is co-participant in the shaping of knowledge and that this relationship has an ethical dimension, is governed by an etiquette” (p.145). Cheney looks to rocks as metaphors:

Rocks, in their enduring presence, their watchfulness, may be our first and most profound teachers of the most fundamental aspects of moral presence in and to this world: mindfulness and universal consideration, universal invitation into the reciprocities of knowledge and care. (p. 145)

His argument is that when we don’t take on an attitude of dominion and power over the earth, then the earth can be “an active partner in the construction of knowledge. This conception of knowledge is what I understand by a spiritual relationship to the earth.”

Viewing the earth as a co-participant in the shaping of knowledge overlaps with the theory put forward by Lave and Wenger (1991) about communities of practice and socially situated learning, in which co-participants shape one’s learning and perceptions of a place. The natural world is part of the co-participant population, along with the human community of practice. Both fishermen and farmers learned from people, but they also learned by trial and error, where the earth responded in a certain way and made them either successful or unsuccessful farmers or fishermen. They believed that through trial and error they learned from the land and ocean. All fishermen and farmers agreed that due to the

changing nature of both the natural world and the cultural climate, every day is different and everything is always changing, so they are always learning.

Organic practices require the farmers to know the land, water availability, the way the sun hits different parts of the land, what time of year to plant or harvest. Because they work intimately with the land, they believe they learned from the land. The five farmers said that when they “listen to the land,” they most appropriately learn how to farm that specific plot of land: “The land tells me how it wants to be farmed. One way is by how the water runs through and off the land, telling me how the land is contoured, how to plow the land, how to seed the land, and how the land will erode if I am not careful...If I don’t listen to the land, there will be soil degradation and erosion” (Parker, personal communication, February 5, 2002). Other participants shared how they believed they learn from their land through trial and error: how the land responds, how the weather acts, and how they can and cannot grow certain species on their farm. Stephen referred to the little parts of his land as microclimates that he has had to get to know over time. He believes that he knows this not through a book, but by interacting directly with the land.

There are times when the non-human world “listens” to the human being, creating a two-way relationship. Organic farmers prepare the soil for all produce, viewing the soil as an ecosystem in and of itself, so they believe they learn from the soil. However, they also determine what they want to grow in order to have produce that customers want to purchase. When they do this, they are manipulating the environment for what they want. Therefore, the farmers not

only adapt to the non-human community, but they “ask” the non-human community to adapt to their needs as well, depicting an interdependent relationship.

Four of the five farmers discussed how farming is not “natural” and that they manipulate the environment to grow the crops that are profitable. One of them pointed out that “A carrot does not naturally grow in New Hampshire in the forest, we plant it, nurture it, and harvest it,” (Richie, interview #1). Because of this manipulation, farmers are dependent on certain uncontrollable aspects, while controlling others. The interdependence depicts how there is a mutual shaping of behaviors and traits.

The fishermen also believed that the non-human community supported the fishermen through trial and error, and through interactions with the natural world. The fishermen learned about where the fish were, what their migration patterns were, how to harvest them best, and how the weather, seasons and tides affected the fish populations. Later they learned how unsustainable harvests effected the fish populations, and this taught them further about ecological processes and the finiteness of populations.

Miles stated he thinks like a cod in order to find cod. He has to try and get into how a fish migrates, moves, and acts. Other participants also referred to their belief that they learn from the ocean and its inhabitants. Mike shared that he had observed black-back flounder populations decline, but he believed they will come back because “I can see they are a tenacious fish” (Mike, interview #2). He told me how difficult it is to catch these fish, leading him to believe they are strong

willed. Through countless days on the sea, fishermen observe the ocean and the cycles, always gaining knowledge.

Through countless observations of fewer fish in their harvests, the fishermen stated that they learned from the non-human community how the fish populations declined because of fishing practices. Interdependence with the natural world was evident in how the participants shaped and molded the ecological community in which they work. Fishermen impacted the fish populations, which they harvest from. As a result of fishing, some populations can be positively impacted while others can become decimated. Fishermen are ecologically part of the system. They learned that their behaviors affected the fish populations from the number of available fish, and learned to fish more sustainably to preserve the fish populations and to have a sustainable commercial fishing industry.

Unlike the farmers, who can contribute to the earth and build the soil and create a healthy substrate, commercial fishermen are essentially hunters. They can't fertilize the ocean or contribute to the populations. The fishermen do not have the ability to manipulate the ocean like the farmers do, so the two-way relationship must come in the form of the fishermen doing the best they can to reduce their impact on the ocean and contribute to the improvement of the living environment for fish.

As a result of being land-practitioners, all of the participants knew that they were interdependent with the natural world. This interdependence can be interpreted as viewing the self as part of the natural world, versus being separate

from it. The deep ecological and environmental ethics literature helps develop our understanding of the ecological self. The participants maintained an ecological identity from their immersion into the community of practice, and from recognizing the unity of the self with the non-human community. This unity was similar to the way we already identify with being a human being, knowing that we are the same as other human beings, but are also different, and can maintain relationships with other human beings.

As a result of this unity with the non-human community, participants also formed a spiritual perception of the non-human as an entity with which they could maintain a relationship. They felt supported by the non-human community to become organic farmers or commercial fishermen. They felt that the land and the ocean supported their livelihoods, and that they were spiritually linked with these natural entities.

Lastly, because of their perception of the supportive relationship between the self and the natural world participants also believed that they could co-construct knowledge with the non-human community as well as they could with the human community. They believed that through trial and error, they were learning *with* the non-human world.

The literature and the data from this study support the idea that the community of practice literature can be extended to include the non-human world in the co-construction of knowledge. By maintaining a supportive relationship with the non-human world, participants believed that they felt cared-for by the non-human community, and because they felt cared-for by this community, they

developed a felt obligation to reciprocate the care, linking the non human world into Noddings's care ethic.

For example, Parker shared that he believes that when he "listens" to the land and learns where to plow and seed his crops, he learns how to appropriately care for the land. If he does not listen to the land, his actions result in increased erosion and soil degradation, therefore, demonstrating a lack of care for the land. Because he listened to the land, learned from it, and cared for the it, he believed that the land provided him with a successful crop. This indicated a reciprocal relationship in which Parker initially was the "one-caring" for the land, listening to the needs of the land. Parker believed that the land responded to this care by providing a healthy crop, completing the caring relationship.

In addition, the initial stage of this relationship, where Parker believes that the land informs Parker how to plow and seed results in his belief that the land caring for him, supporting his dream to be a farmer. Parker responded as the cared-for by heeding the needs and demands of the land. This cycle demonstrates a reciprocal caring relationship.

The motivation to care for the land can be both grounded in environmental ethics and grounded in economics. In fact, at times the participants ignore their environmental ethic and heed their economic needs. For example, Elizabeth shared that although she tries to maintain an ecosystem on her farm, she also killed the woodchucks that were eating her crops. At this point, she ignored her ecological ethic and instead protected her economic viability. Another example of forfeiting one's ecological values for economic benefits was demonstrated

when James shared that if a fishing boat were to be making a lot of money, he would ignore oil that was pouring off the engine into the ocean, because he would rather make money.

However, there are other times when the participants ignored the need for economic gains and followed their environmental ethic. For example, all the organic farmers have sacrificed lucrative livelihoods because they wanted to farm organically, which is hard work and low paying. All five claimed that you have to love organic farming in order to remain in it, because the love for it is the reward. Their love deepened over time as their knowledge and ethical dispositions evolved.

An example of heeding an environmental ethic rather than an economic one was provided when two of the fishermen, Miles and Mike, chose not to fish when the catch limits were thirty pounds. They both said they ethically could not fish and would find other work rather than kill thousands of pounds of fish for thirty keepable pounds. They sacrificed more than their jobs, since they also temporarily sacrificed their way of life because they could not ethically stand to fish at that time.

At times, the two populations did demonstrate ethical care for the land. The care evolved out of being immersed in a community of practice, where they felt supported by the humans and non-humans to develop place attachment, construct knowledge, develop an ecological identity, and to become publicly involved. The support and care that they felt in the development of their sense of place helped the participants develop an obligation to reciprocate the care toward

the place. Deep ecology and environmental ethics helps to explain the spiritual relationship that exists between the participants and the non-human world, allowing for the communities of practice and care ethic literatures to extend to include the non-human world.

The motivation to act upon their developed environmental ethic stemmed from their felt obligation to return the care and support to the community. The fishermen and farmers developed a personal and spiritual relationship with the non-human community of practice as a result of their immersion into the social context of commercial fishing or organic farming. From this relationship they developed a commitment to sustain the small organic farming industry and the commercial fishing industry. Their commitment to the communities of practice and to the industry was evident in their attitudes, actions and behaviors. Their behaviors changed as a result of their changed attitudes and ethical considerations toward the place as they learned more about the place and their interdependence with the place and their increased connection with the place. The farmers and fishermen both felt obligated to support the communities of practice by training newcomers, teaching other about the importance of the practice, and for some of the participants, getting politically involved to help sustain the communities of practice throughout time.

### Conclusion

The community of practice theory and the idea of situated learning in social context theory strengthen the conceptual and empirical foundations of the concept of sense of place. The care ethic and deep ecology thinking together form



an environmental ethic that strengthens the conceptual and empirical foundations of the link between sense of place and environmentally responsible behavior. In this section, I conclude how the community of practice literature contributes to the development of a sense of place within a social context. Then I conclude that the environmental ethic, rooted in a care ethic and deep ecology thinking, contributes to our understanding of how the development of a sense of place within a social context can motivate a person to ethical action.

The development of the participants' sense of place began with their induction into a community of practice. Their immersion came as a result of the community support for them to enact their initial preferences in organic farming or commercial fishing. Their induction into the community of practice contributed to the participant's place attachment.

As the participants were practicing their profession, they began to learn skills and knowledge, and were motivated to progress from newcomer to full practitioner roles. In the process of learning, they felt emotionally supported to grow into new roles, and felt increasingly valued as members of their communities. The community contributed to the participants' construction of affective and cognitive knowledge so that they could progress to full-practitioner roles. As participants learned more about the community, and about the ecological and social process, they began to develop an identity that was associated with the community and place; their ecological identity was formed. Knowledge construction and progress through the roles contributed to participants' increased place attachment and immersion into the community way

of life. The community of practice shaped their dispositions toward the community and the place, deepening their commitment to the way of life and to the community's well-being.

The community of practice literature begins to develop a theory of how a person learns ethical dispositions and behaviors from their community of practice. However, this process requires further interpretation, including an ethical literature, to explain how an individual's ethics evolve, and how a person becomes motivated and feels obligated to act upon these ethics. Drawing upon the care ethic, environmental ethics, and deep ecological perspectives, the results indicate that when the participants felt cared-for by the community, they eventually felt an obligation to reciprocate this care. The participants were motivated to act upon their developed care ethic because of the initial support and care they felt. They learned how to reciprocate this care by experiencing the care themselves.

I draw upon deep ecology and environmental ethics to support the participants' belief that they felt cared for, supported, and taught by the non-human community. This belief was possible within the context when participants spiritually perceived the non-human community as being part of themselves. Through the participants' immersion into the natural world, and because of their felt interdependence with the natural world and natural occurrences, the participants felt part of the non-human community. They developed an emotionally and spiritually felt relationship with the natural world and began to develop an ecological identity. Deep ecological literature supports this unity

between the human and non-human communities. As a result of being able to feel supported, cared for, and taught by the non-human community, they developed an ethical obligation to reciprocate this care toward the non-human community.

As a result of immersion in the community of practice and the non-human community, participants developed a sense of place and a sense of ethical obligation. This ethical obligation was evident in their reciprocated supportive behavior and their ethical consideration toward the place. Although they did not always act on the ecologically ethical ideal, they began to take the local human and non-human community into ethical consideration. The main force that hindered their environmental responsible behavior was a conflict in values between economic gain and preservation of the place.

## **CHAPTER FIVE**

### **IMPLICATIONS FOR ENVIRONMENTAL EDUCATION**

On this chapter I begin with indicating how the results of this study inform environmental education (EE), resulting in a new model. I end the chapter with reference to future research potentials.

This study strengthens the conceptual and empirical foundations of the concept of sense of place and clarifies how sense of place is linked to environmentally responsible behavior, contributing to the improvement of environmental education (EE). The results indicate that sense of place is developed and sustained in a social context, and that a person must feel supported and encouraged by his or her local community to have a sense of place that leads to ethical action. The implications for EE include the need for students to engage in an authentic community of practice. This includes two possibilities, the first suggests that formal learning environments, such as schools, integrate with non-formal learning environments, such as farming or fishing communities of practice. The second possibility includes viewing the school as a community of practice in and of itself, encouraging newcomers to work with old-timers (teachers, older students) in a mentor-like relationship. In both cases, the learning communities should encompass the local non-human community. The integration of these two possibilities can develop students' critical thinking skills, ecological and social knowledge, perceptions of self as part of the environment, and ethical

dispositions. Using the community of practice framework can create a supportive and caring social context, and could be an effective way to develop and sustain a sense of place in students that would lead to environmentally responsible behavior.

Next I discuss how the results of this study inform EE curricula. I review the evolving EE concept of sense of place, and apply the results to this conceptual framework. I review four main transitions EE has gone through since its globally acknowledged inception in 1975 (Belgrade Charter), concluding that my results integrate all four perspectives of EE into a new model.

#### The Four Perspectives in Environmental Education

Environmental education evolved into a goal-oriented profession, turning its focus to the development and facilitation of environmentally responsible behavior, a new goal that was globally acknowledged at the Belgrade (1975) and the Tblisi (1977) conferences (Environmental Protection Agency, [EPA], 1990 in Berger, 1995; Hines, Hungerford, & Tomera, 1987; Hungerford and Volk, 1990; Meadows, 1989; NAAEE, 2000; Orr, 1992; Orr, 1994; Smith, 1992; Tilbury, 1995) (reviewed in the Introduction).

From the goal-oriented approach, EE moved toward a new focus: attending to the process of the developing of environmentally responsible behavior and independent critical thinking (Robottom and Hart, 1990). During the same period of time, another EE movement evolved, toward *environmental education for sustainability* rather than simply *environmental education* (Tilbury, 1995). Most recently, the movement in EE is to broaden the focus beyond

sustainability, to encompass critical thinking and a moral education incorporating environmental ethics (Bowers, 2001; Jickling, 2001; Orr 1992).

I review the evolution of these four EE frameworks and, using the results of this study, I argue for integrating of all four of these perspectives. First I present how the results of this study support each of these viewpoints. Then I conclude with a new model for EE, which encompasses the four perspectives into one.

*The Goal of Environmental Education is to  
Facilitate Environmentally Responsible Behavior*

Although environmental education (EE) has evolved over time through various stages with different goals and objectives, ultimately, professionals in the field still refer back to the Belgrade Charter (1975) and the Tblisi Conference (1977) both of which synthesized a single basic goal: to facilitate environmentally responsible behavior (J. Dillon and A. Gough, personal communication, April 9, 2002). The history and the specific means and objectives that have contributed to this simply stated goal are presented in the Introduction.

The overarching goal of environmentally responsible behavior inspired this research. I believe the following three perspectives are rooted in this one goal, even if they critique it differently; ultimately, critical thinking, sustainability, and moral education all strive to encourage environmentally responsible behavior change. At the time of the inception of this study, sense of place was beginning to be integrated into EE because it was assumed that a person with a well-developed sense of place would act responsibly to protect the environment in that place (Barry 1995; Dodge, 1981; Snyder, 1995; Orr, 1992;

Kemmis, 1990; Berry, 1977; McTaggart, 1993; Leopold, 1949). The protection of the environment and other environmentally responsible behaviors were seen as the goal of EE, and sense of place was seen as a vehicle to yield this goal. However, both the idea of sense of place and the link between sense of place and environmentally responsible behavior were conceptually and empirically inadequate. The purpose of strengthening the conceptual and empirical foundations of sense of place and how it is linked to environmentally responsible behavior is to inform environmental educators how to better facilitate the basic goal of EE.

The results of this study suggest that in order to have a sense of place that yields environmentally responsible behavior, a person needs to feel supported and cared for by the local community. The local community plays a role in helping develop place attachment, constructing ecological knowledge and an ecological identity, and supporting community membership and the development of a social identity.

Because there are so many factors contributing to one's actions, the link between sense of place and environmentally responsible behavior requires EE to embrace a focus broader than one goal, environmentally responsible behavior. EE should also emphasize the process of promoting critical thinking, considering social and cultural perspectives, and challenging ethical dispositions. All these processes can be encompassed within the integration of the formal school setting and the social context of a practice. These processes within a situated learning environment are suggested in the following three perspectives. First I present the challenge of the behaviorist model of a goal oriented EE.

### *Moving from a Behaviorist Perspective to Autonomous Independent Thinking*

Since the Belgrade Charter and the Tblisi Conference, the positivist perspective that there is only one goal of EE has been challenged (Robottom and Hart, 1990). They argue that the goal-oriented approach is too narrow and confines EE into behaviorist research of one criterion: environmentally responsible behavior. Robottom and Hart argue that there are results of EE that can be critically assessed and considered positive other than environmentally responsible behavior. He claims that “the main aspiration of environmental education is the development of independent critical thinking in relation to environmental issues” (Robottom and Hart, 1990). Their rationale is that the purpose of EE is to facilitate independent thinkers who take responsibility for their own actions. This goal encompasses the overarching goal of environmentally responsible behavior, but also allows for extensive research on EE programs that assess other criteria such as the process of developing critical thinking skills. He quotes Willis (1981) with regards to research in EE:

The radical or reconceptualist form [of educational research] is superior, expressly because it includes consideration of both consciousness and political action and thus can answer moral and social questions about curricula which the dominant form cannot. It encourages individuals to be intelligent, autonomous agents, taking responsibility for their own actions and encouraging the intelligent, autonomous actions of others within mutually interdependent and evolving social situation. (p. 6)

In my study, the results indicate that sense of place is developed within a social context. This is most apparent when the participants learned the dispositions of the old-timers, for better or for worse. At times these dispositions were not ecologically sustainable, and because often in their communities of



practice there was little encouragement for autonomous thinking, the participants conformed to the social norms. It can be difficult to challenge these social norms within a supportive and caring community of practice in which a person is immersed socially and professionally. If a person in a close community wanted to act environmentally responsible it required him or her to act autonomously in accordance with personal intellectual perspectives, which could challenge his or her community membership.

For example, James often mentioned how the other fishermen called him “an art fag” when he went against the grain to save the lives of by-catch or prevent garbage from being thrown overboard. He said he took this risk because he felt he was established enough as a good crewman, but he agreed that in the beginning he was intimidated. In addition, although James would occasionally act against the cultural norms, he also shared that he would go on any boat that made a lot of money, even if they were dumping excess oil into the ocean. At these times he was free-lancing and did not feel as comfortable with the crew and did not say anything about their environmentally destructive actions, but worked hard at harvesting fish in order to gain their respect as a crewman.

Robottom (1990) suggests EE should focus on teaching students to become autonomous independent critical thinkers. These skills encourage students to reflect and consider the dispositions and actions that are being passed between community members. Although this is challenging, if EE is going to facilitate environmentally responsible behavior, it has to provide people with the skills and confidence to challenge sociocultural norms which are environmentally

destructive. If schools integrate a community of practice model, either by integrating with a local community of practice, and/ or working toward the school becoming a community of practice, teachers could encourage students to develop their independent critical thinking skills by questioning cultural norms that exist within the community of practice.

From the focus on autonomous independent thinkers, EE expanded to include environmental education for sustainability (EEFS), (Disinger, 1999; Haury, 1998; Meadows, 1990; Orr, 1992; Tilbury, 1995).

### *Environmental Education for Sustainability*

The focus on EEFS called for the focus of EE to go beyond the study of biological and ecological systems to include the study of social systems. Tilbury (1995) states that EE should be more holistic and focus students on “increasing their understanding of themselves and the world around them...to explore the links between their personal lives and wider environmental and development concerns,” and to take into consideration “the multi-faceted nature of the environmental situation” (p.197). Tilbury suggests that EE curricula should integrate science and social studies using issues relevant to students. From this standpoint, EE began to embrace the goal of promoting environmentally responsible behavior while teaching students about the whole picture.

Environmental education is learning to see the whole picture surrounding a specific problem like air pollution--the history, values, perceptions, economics, technologies, and natural processes that cause the problem and that suggest actions to cure it. Environmental education includes learning for the sake of

learning but it also encompasses very practical purposes; it is learning how to manage and improve the relationship between human society and the environment in an integrated and sustainable way... EE is fundamentally education as problem solving...from a philosophical basis of holism, sustainability, enhancement, and stewardship. (Meadows, 1990, p.4)

EEFS encourages the integration of cultural studies, social studies, and ecological studies (Tilbury, 1995; Meadows, 1990; Haury, 1998; Disinger, 1999). Haury suggests that in an effort to promote EEFS, all educational practices should “place ecosystems at the intellectual center of all disciplines” (p. 1). Although Haury’s focus is primarily on facilitating ecological understanding, he agrees that EEFS is interdisciplinary, by referring to The President’s [of the United States] Council on Sustainable Development’s six themes of Education for Sustainability:

1. Lifelong learning within both formal and informal educational settings.
2. Interdisciplinary approaches that provide themes to integrate content and issues across disciplines and curricula.
3. Systems thinking as a context for developing skills in problem solving, conflict resolution, consensus building, information management, interpersonal expression, and critical and creative thinking.
4. Partnerships between educational institutions and the broader community.
5. Multicultural perspectives of sustainability and approaches to problem solving.
6. Empowerment of individuals and groups for responsible action as citizens and communities. (Haury, 1998, p.1-2)

EEFS suggests that environmental education should be integrated throughout the school curricula, in addition to the formal classroom educational curriculum. David Orr (1992) suggested, “all education is environmental education” (p.90). He suggests that all of the curriculum of the school model sustainability and ecological literacy.

The results of this study support various aspects of EEFS. The overarching purpose of EEFS is to encourage people to view themselves within the context of the world. Of several suggested ways, one includes lifelong learning in formal and non-formal settings and the integration of all disciplines. The integration of schools and communities of practice would integrate formal and non-formal learning strategies, creating the social context to develop a sense of place. Again, the learning environment must include the non-human community. The benefit of the non-formal learning setting of the community of practice can help develop one’s sense of place. The support and encouragement of a community of practice helps the development of place attachment, ecological knowledge and identity, and community membership and social identity. Through the development of an ecological and social identity, students learn to view themselves within the context of the world around them.

The benefit of the formal learning setting is that the students can be empowered to reflect objectively upon their experiences in the community of practice. If a student is immersed in a community of practice, while also being immersed in a classroom environment, he or she can simultaneously learn and critically assess the social norms of the community of practice.

Again, the community of practice can be a local community of practice outside the school, such as farming or fishing, or it could also be the school as a community of practice. As long as both options include the local non-human community, then either one, or a combination of the two, would help contribute to the students critical thinking skills and the students' view of their role within the social context of their local human and non-human community.

In order for students to critically assess cultural norms, they need an ethical framework from which. Critical thinking and decision making that leads to environmentally responsible behavior still requires attention to ethics and values in EE.

### *Environmental Education and Moral Education*

Environmental education for sustainability includes many facets from which to teach environmental education. However, critics of EEFS focus on two inadequacies. The first is that the term sustainability can be interpreted in many different ways, some of which are not ecologically sustainable. The second is that EEFS is too narrowly focused on one goal, rather focusing on the complex process of change. The process of change includes moral education, attention to environmental ethics (Bonnett, 2002; Bowers, 2001; Jickling, 2001).

The term sustainability is challenged by Jickling (2001), who claims that "so absorbed are the differences that ecologists and mining promoters can, with public approval, both use the term sustainability to support radically different values" (p.176). Jickling states that teachers should move beyond the term sustainability in order to encourage students to engage with issues that are not

inherently about sustainability but are rather “cultural identities, respect, society-nature relationships, and tensions between intrinsic and instrumental values”

(p.177). Jickling supports EE that encompasses moral education: “Speak confidently about cultural, spiritual, aesthetic, and intrinsic values. By seeking out and including these critical, and potentially transcendental elements, we are creating more room in our curricula for philosophical inquiries that reveal contesting assumptions and prepare students to evaluate moral possibilities” (p.178).

Critics are also against thinking of sustainability only as an end for environmental education. In another article, Jickling (2001b) states that “our task, as educators, is to enable this process, to enable environmental thinking, not to prescribe ends” (p.187). He points out that “this process” is complex and all aspects of it ought to be considered.

Bowers (1995) suggests that we not support an individually-based moral education but rather recognize how culture plays a role in our individual thinking and focus on the way language and cultural norms shape our thinking, values, and actions. He suggests that moral education should be integrated as part of the curriculum.

The argument that the use of language in the content area of the curriculum helps to reproduce and thus normalize the culture’s way of representing which relationships have moral significance, and which do not, brings into focus how the entire curriculum is part of the process of moral education...But the biggest challenge is recognizing the false consciousness that now exists; that is, recognizing the many cultural/individual forms of denial that there is an ecological crisis. (p.40)

Culture plays a strong role in the development of ethical dispositions.

Bowers (1995) and Jickling (2001) are suggesting that education turn its focus to encouraging students to critically assess what they are learning culturally.

Bonnett (2002) agrees that culture plays a role in people's understanding and dispositions. He argues that three main problems with education for sustainable development include semantics, ethics and epistemology. He states that the term sustainability can be misinterpreted due to a rationale that is developed in a single cultural context. A person's definition may be rooted either in an anthropocentric or biocentric perspective, leading to different means and ends. In addition, he argues that no one knows what actions will or will not contribute to sustainable development.

Bonnett (2002) supports education for a sustainable frame of mind.

Bonnett's frame of mind for sustainable development is rooted in loving oneself in order to love "nature."

This alienation from nature and from self are highly interrelated and key to our ability to knowingly despoil the environment. If we love (value) ourselves, we will love (value) that which we believe supports us. This view suggests that part of education for sustainability as a frame of mind will be to reconnect people with their origins and what sustains them and to develop their love of themselves. (p.14-15)

Jickling (2001), Bowers (1995), and Bonnett (2002) all suggest that EE focus on cultural identities and on society-nature relationships. All three suggest that EE should focus on the cultural and spiritual aspects of one's place in the natural world. The results of my study fit easily into these suggestions because they indicate that in order to move from a sense of place to environmentally responsible behavior, attention must be given to one's environmental ethics.

The results indicate that one develops an obligation to care for a community and a place through feeling initially cared for by the community. Because they felt cared for, participants not only felt obligated to reciprocate the care, but also were motivated to act upon this obligation. The extension of Noddings's (1984) care ethic to include the ability to care for the non-human world requires a new perception of the relationship between humans and non-humans. This perception needs to unify humans and non-humans as being part of one another, rather than separate. As reviewed in Chapter Four, environmental ethics are a guide for judgement and action, for living in a way that is sensitive to the ecological and social limits of a place (Desjardins, 1997). How we perceive the non-human world can dictate our guide for judgement.

When one perceives the non-human world as part of the human world, one is able to learn from the natural world and to feel cared for and supported by the natural world. The participants in this study felt spiritually supported by the land or the ocean, and felt they worked best when they worked together rather than against one another. Therefore, following the care ethic logic, when people learn to perceive the non-human world as part of the human world, they can experience feeling supported and cared for by the non-human community and can eventually develop a feeling of obligation and a motivation to reciprocate the care they have experienced from the non-human community.

In order for students to feel supported and cared for not only by the teacher, but by the broader local human and non-human community, EE should either connect schools with local communities of practice that are associated with



the non-human world and /or become a community of practice that includes the local non-human community. Within the social context of a community of practice, students can learn how they are not separate from the non-human world, but rather part of it. This can have transformative effects on their thinking, their ethical dispositions, and their actions.

#### **A New Model for Environmental Education:**

##### **The Integration of Community of Practice within School Curricula**

In conclusion, it is possible for these four perspectives in EE to be integrated into one framework. A new model of EE that integrates a community of practice with school curricula can encompass the overarching goal is to facilitate environmentally responsible behavior with the process of developing autonomous critical thinkers, fusing formal and informal learning environments while managing and improving the relationship between human society and the environment in an integrated and sustainable way, and lastly, facilitating an environmental ethic that is rooted in a care ethic and deep ecology.

The process of obtaining environmentally responsible behavior includes socially contextualizing the development of one's sense of place (strengthening place attachment, constructing ecological and social knowledge, and supporting ecological and social identity), encouraging autonomous independent thinking, defining ecological sustainability, and clarifying an environmental ethic. The social context includes the local human and non-human community, which comprises the community of practice in which the student is immersed. The social

context of support and care that encourages transformation of one's thinking from an individualistic perspective to one that is oriented toward active citizenship.

The integration of community of practice in school curricula can be enacted in two ways. First, through the integration of the school with a local community of practice, such as farming or fishing. Second, the school itself can focus on becoming a community of practice. Ideally, a combination of both would link the school with the local human and non-human community.

However, the important piece here is that students engage in authentic learning, where they want to learn the skills and knowledge because their preferences can be enacted. Through the immersion into a community of practice, the student feels supported and cared for, as they learn to become a successful practitioner, whether it be a practicing farmer, fisherman, or student (in the community of practice that is school). Again, by integrating the non-human community into the social context, the student can begin to develop a view that he or she is not separate from the non-human community but rather a part of. By developing this perception, they can begin to feel cared for and supported by the local human and non-human community. As a result of being cared for, they develop a desire and obligation to reciprocate the care back to the human and non-human community.

Their obligation and motivation to care back to the non-human community can be described as an environmental ethic that fuses a care ethic and deep ecology.

This ethic motivates their behaviors. David Orr's (1992) model "I know, I care, I'll do something," is inadequate because it assumes that simply by knowing, one will act accordingly. Instead, in response to the results of this study, I suggest that

EE follow a revised model: “I know, I ethically consider, I care, I will do something.”

When a school evolves into the model of a community of practice in and of itself, the teachers are not authority figures, but mentors and facilitators in the construction of knowledge, identity, and skills. Through this mentorship role, the students feel supported and cared for, and motivate to stay in the community of practice and progress through the roles of the community. For example, within an elementary school, students progress through the roles of kindergarten through fifth grade. For example, a “newcomer” kindergarten student may learn from an “old-timer” such as the teacher or a fifth grader. The students will engage in the practice of learning if they are motivated to do so and feel their preferences are being enacted. Teachers need to listen to students’ needs in order to know what they want to learn and what will engage their learning.

The school as a community of practice requires teachers to teach students how to objectively reflect upon their experience as a learner, to assess what ethical dispositions are being passed on, and to develop their independent autonomous thinking skills. This can be difficult for teachers who are too connected to their ego. Students are encouraged to question the cultural norms of school. Often times in current school settings, students are punished for questioning cultural norms of a school. This new model of schools as authentic learning communities, requires teachers and students to work together, rather than opposed to one another.

Schools can tend to become isolated from the local human and non-human community. The teachers need to integrate the greater community into the classroom curricula, particularly paying attention to the surrounding non-human community.

The integration of formal and informal learning environments encourages the students to engage in the social context of the community. In the community of practice, students can feel supported and encouraged by the local human and non-human community to learn a practice and develop a sense of place. In the formal setting, they learn how to think critically and to question knowledge and cultural norms that are being transferred from old-timers to newcomers. Through the support and care from the human and non-human community, they develop an ethical disposition to reciprocate the care and support back to both communities. Over time, the student can evolve into a full-practitioner, training newcomers and modeling a care for the local human and non-human community.

#### *Possible Obstacles to the New Model*

Integrating community of practice into the classroom will take creativity and courage. It deviates from the “authority” model commonly observed in United States classrooms. It asks that teachers facilitate an orderly managed classroom, while allowing students to freely explore their social, vocational, and academic interests. In addition, teachers are currently increasingly mandated to follow curriculum standards and implement standardized assessment tools. As a result of this administration pressure, teachers are not encouraged to allow their

curriculum to be dictated by the student's interests, but rather requiring teachers to teach students knowledge dictated by a standardized curriculum.

These obstacles can be overcome by both careful integration of student's interests, community assets, and the standardized curriculum. By encouraging students to become independent learners as well as expressive classroom and school community citizens, the student's interests can become known. This requires teachers to listen and respect their students' thoughts and words. In addition, most curriculum requirements can be integrated into authentic learning experiences with ingenuity and creativity.

In the model where the greater community is integrated within the school community, some obstacle may include administration funding, as well as insurance issues in higher risk manual labor. Because this is an innovational model, grant writing could possibly overcome some of the financial limitations.

#### **Future Research Possibilities**

I envision three ways to extend this research, including both classroom and community applications. One is to continue researching the concept of sense of place. Another is pilot and research an EE program that integrates community of practice into a school's curriculum and to conduct research on the program and its effects on students' sense of place, environmental ethics, and environmentally responsible behavior. The third extension is to develop and implement a tool for assessing people's sense of place and their environmental thinking and associated behavior.

In continuing to research the concept of sense of place, there are several ways to approach this. First, to study how sense of place is developed in a community of practice that is not associated with the land, such as hairdressing. Second, would be to research people's sense of place who do not feel part of a community of practice and work indoors, such as people who live in suburbs and work in city offices. Third, sense of place could be examined in how it is developed and sustained among people who work in transient jobs that are associated with caring for the land. For example, in the United States Forest Service (USFS), the rangers are promoted when they move from district to district, encouraging transience among the forest service employees. However, the mandate of their job is to care for and protect the forests.

To research the impact of environmental education program that integrates community of practice with school curricula would contribute to the development of the new EE model suggested in the implications of this study. The research would focus on the process of students development of sense of place, environmental ethics, and environmentally responsible behavior. Part of the process would be to investigate students engagement with learning, critical thinking skills, and views of their perception of their role in the local human and non-human community. In addition, I would want to assess the students' ecological and social knowledge, ecological and social identity, ethical perceptions, and actions. An extension of this project would be to undertake a longitudinal study investigating long-term effects of EE coursework on students'

sense of place, their environmental thinking, and environmentally responsible behavior.

Lastly, I would like to develop a tool to assess people's sense of place, environmental thinking, and environmentally responsible behavior. From my discussions with colleagues at NAAEE (North American Association for Environmental Education), NARST (National Association for Research in Science Teaching) and AERA (American Educational Research Association), and from my literature review, I have become aware that such an assessment tool is in high demand for EE research. Most assessment tools for environmentally responsible behavior do not assess people's thinking but instead focus on behaviors other than sustainable actions and active citizenship (The National Environmental Education and Training Program used a survey developed by Roper Starch Worldwide, 1998).

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## **APPENDICES**

## **APPENDIX A**

### **An Example of a Preliminary Transcription with the Developing Questions for Subsequent Interviews**



I am a commercial fishermen for sure, have been for my entire working career, 22 years. [\*\*\*Have you ever done any other jobs? How come you have always commercially fished? Have you ever considered other careers? Have you always fished in this region?] No other way to put it really. Born in Portsmouth, moved to a house where I grew up from 8 years old that is right on the water on the back channel of Portsmouth with a small tidal dock. And love affair with boats started, with a small skiff, and graduated to bigger boats over the year... I worked up over the years, get a little bigger one, use that one graduate to a bigger one. [\*\*\*How did you get the boats? How did you learn to drive them?] I have worked for, running other boats for other people [\*\*\*What type of boats? How did you meet the people? Are you still in touch with these people?]

Now, I am really where I dreamed to be. Size wise and type style of fishing. I own a 42 foot boat, capable of doing anything I want, I drag, trawling predominately, towing mobile gear [\*\*\* why this type of fishing? Do you do a number of things over the course of the year? Which techniques do you use at what times of year?]. (Chris, fishermen, #1)

**APPENDIX B**

**Examples of Questions Asked**

**During a Commercial Fisherman's**

**Third Interview**

A: I guess, the next question I have, you were saying that fishing is kind of way of life, and I was wondering if you think it is for everyone [all fishermen]. What does this way of life entail?

A: So, you think that because the ocean is in your blood, this is associated with independence? I mean, do you think you could be inland doing another independent job?

A: Why do you think you always stayed here?

A: Have you ever considered living in a different ocean front state?

A: So, if the fishing regulations got too intense, and there wasn't any fishing, would you ever consider fishing elsewhere?

A: Well I guess that leads me into the next question: do you feel differently on the ocean than on land, is there any differences between the two?

A: You mentioned that you care and respect the ocean, how would you describe that?

A: I remember in the last interview you mentioned that you couldn't really finger-point or blame people for the fish stock depletion. you mentioned "We are all part of it." Do you think that at the time you knew it was happening?

A: I had a question about dragging, how does it work, you mentioned to me that it drags along the floor, how does that impact the ocean floor?

A: Another hard question, do you think there is a spiritual component to fishing at all?

A: Alright, moving on...I don't know how else to word this, but would you say you have a philosophy behind fishing?...One of the reasons that I am asking, because I have noticed in the farmers that I have interviewed that they seem to have this philosophy behind how they are farming, and I was wondering if that is something that crosses over, something that's like similar, like, is there a sort of I don't know, a mission or a way that you are going about it, that you feel strongly about?

A: I guess it is beliefs, and I guess I was wondering, in the last interview, I asked if you thought fishermen can self regulate and you were like we can't agree...and I was wondering why you thought why fishermen couldn't agree?

**A: When you hear the term sense of place, what do you think of?**

**A: Do you think you have a sense of belonging in New Hampshire.**

**A: Would you say you have a relationship with the ocean?**

**A: You mentioned you learned from the “old-timers.” Are they still around fishing?**

**A: Did you teach anyone to fish as well?**

## **APPENDIX C**

### **An Example of my Reflective and Reflexive Journal**

In this example, there is a part where he speaks of “Thinking like a cod.” At the time of my observation, I simply wrote down, “think like cod,” in my journal. Later that day when I transcribed my notes and reflections, this quick note allowed me to recall and write a detailed description of the moment:

Then he explained how he has to think like a cod, when I asked him where he was going, first he said, “Out into the abyss.” And he said, “is that not why you are here and I am here... You look out on to the ocean, out into the abyss.” He spread his hands out toward the gray ocean horizon-less distance. The fog was building up on the windshield, and the wipers slapped the water away so we could actually look out into the abyss. Inside I felt very comfortable and felt as though I too enjoyed going out into the abyss of the ocean. I could only imagine what this does to someone day after day, which is what many of the fishermen alluded to when they said, “the ocean gets in their blood.” [\*\*\*Why does he love fishing? What is it about going into the abyss that he referred to liking? Why does going out into the abyss invite him to continue to fish? What does he mean when he says fishing gets in your blood?]

Then he continued to tell me how you have to think like a cod. He said that the only way to find the fish is to become the fish. Over time, he said you can begin to think like the fish, which results in finding them more easily. He said he used to joke with Chris, who he called a nickname that evolved out of Chris’ hair color when he was a young kid who came around to hang out with fishermen. (Miles is

older than Chris and remembers when Chris would come around on his skiff and hang out). Chris worked with scallops and so Miles would say, "Yea, you have to think like a scallop and they are this big and he made the shape of a scallop. Their brains are probably this big. He laughed as he made the size of a scallop brain with his fingers. [\*\*\*What happens when he thinks like a cod? What does he learn or become aware of? How does he know how to think like a cod? What experiences taught him how cod thinks?]

He then told me about sounding stones, which are inside the cod's brain which keeps the cod balanced as they swim in the water. He had a little felt bag with drawstrings that contained about ten sounding stones, all different sizes. They range around an average ½ square inch object. Their material is that of a white calcified bone. He emptied the "stones" onto the console of the cabin and said that he used them to see if he will have a good day or bad day, depending on how many turn upright. He counted them and said that it looked like it would be a good day. When I asked him if this prediction worked, he said, "Ahh we threw the sounding stones and then we smoke the peace pipe and not care." (At the end of the day, he asked me if I thought the sounding stones were correct in their prediction...given he reached his catch limit. We agreed they were useful in their predictions).

He had a balance of not caring how many fish he would catch but working very hard and doing the best he could to catch as many fish as he could. This balance seemed to be spiritual in nature, that he knew he could not control the catch at this point.

He took a lot of care to determine where to drop his nets, but once they were dropped, the day was over and he did not think twice about it. he determined the perfect spot by data he had collected from past years, from past days, other fishermen's recent catches, and from an internal feeling (thinking like a cod). After he dropped the nets, he loosely recorded the points of location on a nearby paper towel with a pen that was running out of ink. He told me that was so that he could find the nets tomorrow. After he dropped the nets, he seemed to acknowledge that the nets were dropped and he would get what he would get the following day. [Does he keep records of where he has fished and at what times of year? How does he remember over time? How does he know where he is going to drop the nets? Does he think about the nets after they are dropped? What does he do to either think about or forget about the nets till the next day? What is his perspective on how to conduct oneself as a fisherman and stay sane?]

He then explained how the fish live in columns and sometimes move and sometimes are in one spot, and how it is dependent on the tide and the moon. [I wrote a note to be sure to ask him more about this in the third interview, to access how much he knew about this]. Then his crew who was learning how to fish, he was on his second day on the boat, asked about a fish name. Miles quickly told him the common name and the Latin genus name for the particular species [How did he know the species? How did he come to learn so much about the fish? Did anyone help him?].



## **APPENDIX D**

**An example of a Complete Index Tree for an Organic Farmer Participant, Stephen**

(1) Commitment to greater good

(1 1) Commitment to the environment (*Working with Nature*)

(1 1 3) Love of outdoors

(1 2) Romanticize farming (*Nostalgia for farming...he hopes it is NOT romanticized*)

(1 3) Always growing living simply

(1 4) Nostalgia because he grew up with it

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(2) Sense of place

(2 1) Community

(2 1 1) Neighbors

(2 1 2) Crew

(2 1 3) Family

(2 1 3 1) Grandparents (*Farming skipped a generation...parents did not farm*)

(2 1 4) The State he live in (*New England as a region as well*)

(2 1 4 1) Population (*He likes it with fewer people, but also understands he needs a denser population to increase his customer base*)

(2 1 4 2) State Politics

(2 1 5) College (*Not Agricultural School, rather engineering. He did not complete school*)

(2 1 6) Other farmers

(2 1 6 1) Competition

(2 1 6 3) Mentors (*Bosses, people who taught him stuff about farming, how his crew teaches him too*)

(2 1 7) Other places outside of the state he lives (*Other places he has lived and thinks he can live*)

(2 1 7 1) Travel

(2 1 7 2) Could have lived elsewhere

(2 1 8) Friends, wife, husband, girlfriends

(2 1 9) People who support farmers (*Other farmers, mentors, university extension services, and he supports other people to start their business*)

(2 1 9 1) Land provided

(2 1 10) fishermen fishing

(2 1 11) Customers (*He does the education because he needs customers and that is self serving only in that way, and he also forges connections between people and food, needing customer base, also build community social*)

(2 1 11 1) consumer power in making change

(2 1 12) Animals in the community (*farm and natural species...he is not into farm animals*)

(2 1 13) US culture(*Hard for people to change habits, people lack connection to land and food*)

(2 2) Natural Occurrences

(2 2 2) Weather

(2 2 3) Seasons

(2 2 4) Weeds

(2 2 5) Pests

(2 3) Spirituality

(2 3 1) Connected to where food is from

(2 3 4) No stress what's meant to be will be

(2 3 6) Biodynamics

(2 3 8) Gets in your blood (*Given a different situation he might have been a fisherman*)

(2 4) Land

(2 4 1) Land ownership

(2 4 1 2) History of land use prior

(2 4 1 3) How he got the land

(2 4 2) Getting to know the land

(2 4 3) Becoming part of the land (*Long time at a place, become part of it*)

(2 4 5) Working the land

(2 4 6) Landscapes (*Farmland and open spaces*)

(2 4 6 8) Ocean

(2 4 7) Loss of land to development

(2 5) Home where he lives

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(3) Way of Life and Actions

(3 1) Being a farmer

(3 1 1) no money

(3 1 1 1) Other jobs

(3 1 2) No time, overextended

(3 1 2 1) Recreation

(3 1 2 2) Stress

- (3 1 3) Harvesting/ Picking
- (3 1 4) Kid love and hate farms (*Loved to play but hated picking*)
- (3 1 6) Projects always something to do (*Cultivating, tractor work*)
  - (3 1 6 1) Fixing vehicles
- (3 1 8) Independent
- (3 1 9) Planting seeding, weeding
- (3 1 13) Always learning
- (3 1 16) Lifestyle way of life
- (3 1 18) Stewardship
- (3 1 19) Gotta really like it
- (3 2) Starting his own farm
  - (3 2 1) Farmers market
  - (3 2 2) Business end of Farming
    - (3 2 2 1) Marketing plug
    - (3 2 2 2) Management organize (*Paper work*)
    - (3 2 2 3) Retirement
  - (3 2 3) Farmstand
  - (3 2 8) Started as garden (*Started as a garden then had too much food and ended up selling it...did not ever think he would farm*)
- (3 3) Organic vs. Conventional
  - (3 3 1) Organic certification
  - (3 3 2) Soil
  - (3 3 3) Organic practices
    - (3 3 3 3) Compost

(3 3 3 4) Fertilize (*Probably can be moved to organic practices*)

(3 4) Political involvement (*Public involvement...He says he is not involved politically, doing stuff for his membership committee work*)

(3 4 1) Farming conferences

(3 4 3) Giving to the community (*Committed giving through education, also natural world working to build community, through farmers market, CSA, camp*)

(3 4 3 1) Education is part of organic farming (*Educating customers, crew, camp,. forge connection between people and food. Try to get people to buy locally*)

(3 4 3 2) Membership (*Belonging to farming groups, to go to conferences*)

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(4) Evolving values

(4 1) Commitment to organic farming

(4 1 2) Sacrifice for money

(4 1 5) Save small farms (*Anti-globalization of food, the relationship between agriculture and quality of life in the community. people have more power*)

(4 1 5 9) Small farms vs. organic or conventional

(4 1 6) Ecosystem and soil commitment (*Food Production is 2nd. working with nature. sustaining life. sustainable farming commitment*)

(4 1 7) Value of education (*Educating crew and consumers. Camp for kids in a formal educational way. help forge connections between food and people. Build community*)

(4 2) Farming is lifework (*What I am supposed to do*)

(4 3) Corporate / Social (*Corporate farming too, like cal-organic*)

(5) Talking with me

## **APPENDIX E**

### **Institute Review Board Approval Form**

# UNIVERSITY OF NEW HAMPSHIRE

Office of Sponsored Research  
Service Building  
Office of Sponsored Research  
Durham, New Hampshire 03824-3585  
(603) 862-3564 FAX

LAST NAME	Mueller	FIRST NAME	Anneliese
DEPT	Education - Morrill Hall	APP'L DATE	3/1/99
OFF-CAMPUS ADDRESS (if applicable)		IRB #	2120
		REVIEW LEVEL	EXEMPT

PROJECT TITLE Exploring Professional and Personal Experiences of Environmental Educators

The Institutional Review Board for the Protection of Human Subjects in Research has reviewed the protocol for your project as Exempt as described in Federal Regulations 45 CFR 46, Subsection 46.101 (b) (2), category 2 .

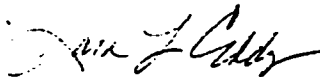
Approval is granted to conduct the project as described in your protocol. Changes in your protocol must be submitted to the IRB for review and approval prior to their implementation.

The protection of human subjects in your study is an ongoing process for which you hold primary responsibility. In receiving IRB approval for your protocol, you agree to conduct the project in accordance with the ethical principles and guidelines for the protection of human subjects in research, as described in the Belmont Report. The full text of the Belmont Report is available on the OSR information server at <http://www.unh.edu/osr/compliance/belmont.html> and by request from the Office of Sponsored Research.

There is no obligation for you to provide a report to the IRB upon project completion unless you experience any unusual or unanticipated results with regard to the participation of human subjects. Please report such events to this office promptly as they occur.

If you have questions or concerns about your project or this approval, please feel free to contact me directly at 862-2003. Please refer to the IRB # above in all correspondence related to this project. The IRB wishes you success with your research.

For the IRB,



Kara L. Eddy, MBA  
Regulatory Compliance Officer

cc: File  
Eleanor Abrams, Education - Morrill Hall



## **APPENDIX F**

### **Example of Participant Consent Form**

(Date)

Dear \_\_\_\_\_

**Introduction:** The purpose of this study is to explore sense of place, and what aspects of sense of place contribute to professional and personal environmental behavior. This will be done through studying the way people who make their livings form natural resources experience sense of place. Through formal interviews, farmers and fishermen will have a forum to share their past professional and personal experiences that led them to their current profession. This focus is the groundwork for understanding how best to teach environmental education (EE). The purpose of this letter is to obtain your consent to be interviewed and observed as part of this project.

Your participation is voluntary. If you consent to be interviewed, you will be asked to discuss, in an open-ended fashion, some of the following topics:

1. What life experiences contributed to your commitment to your current profession
  2. What does your daily life look like and what responsibilities, behaviors and actions does it entail
  3. Reflect on how the links between your professional and personal life
- Your responses will remain strictly confidential. Pseudonyms will be used for each person that I interview. You will have an option of saying things "off the record" that will not find their way into the final account. You may choose to end an interview at any time.

I am available to answer questions or concerns about this project at 603-862-2995. I am asking that you sign and return a copy of this letter. The other copy is for your records. Thank you for your time and consideration.  
Sincerely Yours,

Anneliese Mueller, Ph.D. candidate

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The purpose of this project has been explained to me. I understand that my participation in this study is voluntary and that I may excuse myself from this study at any time. I further understand that the confidentiality of all data with my participation in this project including my identity will be maintained to the fullest extent possible.

\_\_\_\_\_ I consent to participate in this project

\_\_\_\_\_ I refuse to participate in this project.

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Signature and date